

Multi-Scale Investigation of Nucleate Boiling Phenomena in Microgravity

APPENDIX 1/3

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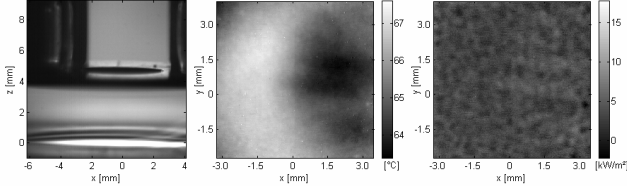


TECHNISCHE
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DARMSTADT

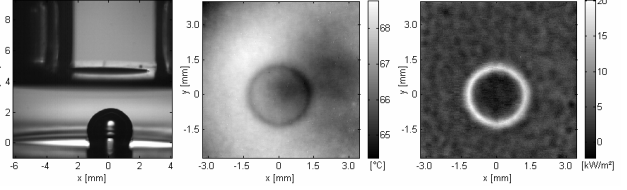
8.4. Data sets of sequence 20

General parameters of sequence 20:

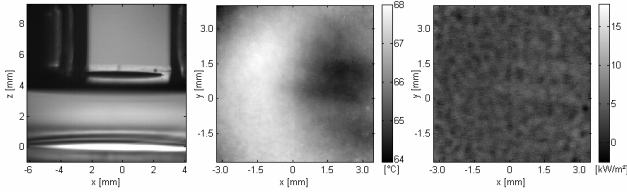
- Electrical heating power $\dot{q}_{el} = 3572 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 41.56 \text{ }^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.36 \text{ }^\circ\text{C}$



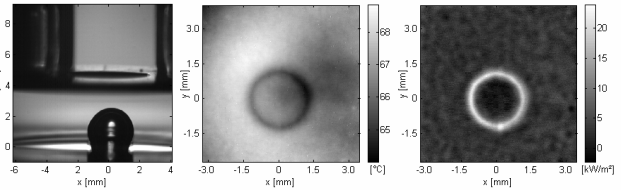
Seq: 20, time=0005ms, gravity=0.15g, $q_{mean}=3398\text{W/m}^2$, $t_{mean}=65.59^\circ\text{C}$, $q_{max}=8877\text{W/m}^2$, $U_{electrode}=0\text{kV}$



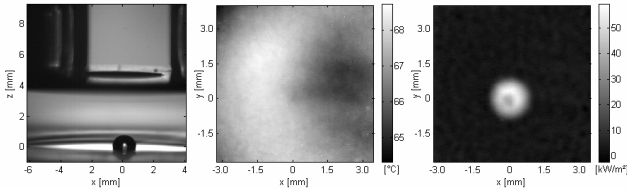
Seq: 20, time=0355ms, gravity=0.06g, $q_{mean}=3845\text{W/m}^2$, $t_{mean}=66.91^\circ\text{C}$, $q_{max}=20194\text{W/m}^2$, $U_{electrode}=0\text{kV}$



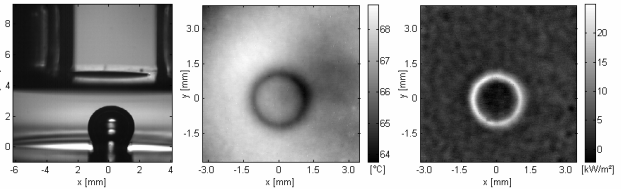
Seq: 20, time=0180ms, gravity=0.1g, $q_{mean}=3210\text{W/m}^2$, $t_{mean}=66.33^\circ\text{C}$, $q_{max}=8338\text{W/m}^2$, $U_{electrode}=0\text{kV}$



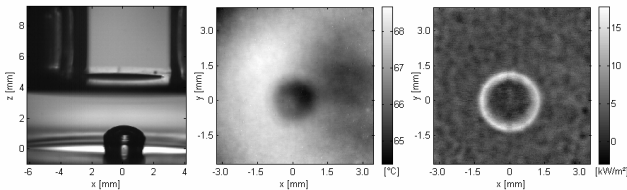
Seq: 20, time=0360ms, gravity=0.06g, $q_{mean}=3856\text{W/m}^2$, $t_{mean}=66.89^\circ\text{C}$, $q_{max}=24193\text{W/m}^2$, $U_{electrode}=0\text{kV}$



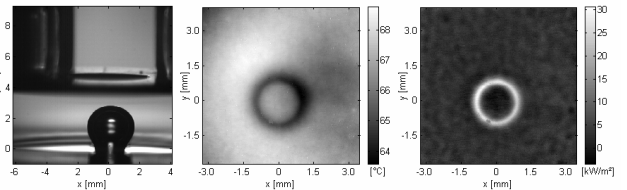
Seq: 20, time=0340ms, gravity=0.07g, $q_{mean}=5124\text{W/m}^2$, $t_{mean}=67.03^\circ\text{C}$, $q_{max}=59700\text{W/m}^2$, $U_{electrode}=0\text{kV}$



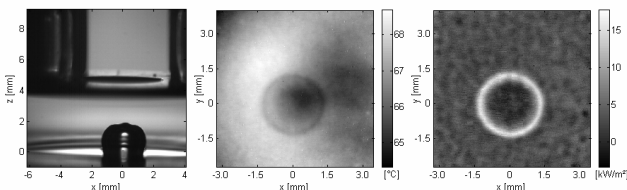
Seq: 20, time=0365ms, gravity=0.06g, $q_{mean}=3868\text{W/m}^2$, $t_{mean}=66.87^\circ\text{C}$, $q_{max}=25164\text{W/m}^2$, $U_{electrode}=0\text{kV}$



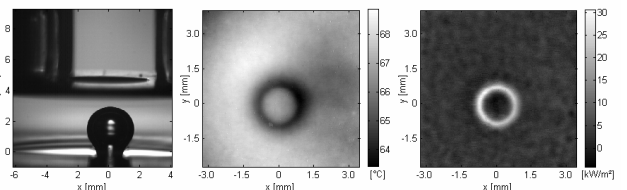
Seq: 20, time=0345ms, gravity=0.09g, $q_{mean}=3632\text{W/m}^2$, $t_{mean}=66.93^\circ\text{C}$, $q_{max}=17528\text{W/m}^2$, $U_{electrode}=0\text{kV}$



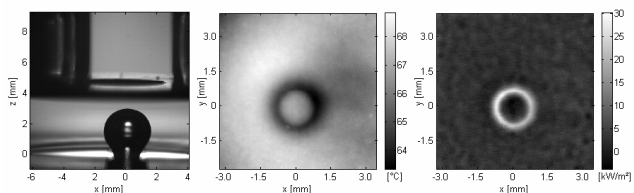
Seq: 20, time=0370ms, gravity=0.08g, $q_{mean}=3907\text{W/m}^2$, $t_{mean}=66.85^\circ\text{C}$, $q_{max}=30988\text{W/m}^2$, $U_{electrode}=0\text{kV}$



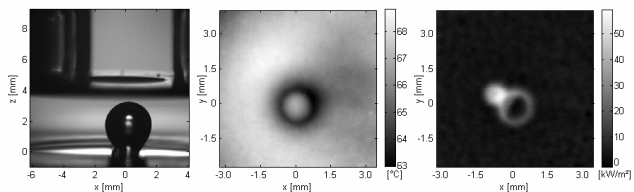
Seq: 20, time=0350ms, gravity=0.07g, $q_{mean}=3709\text{W/m}^2$, $t_{mean}=66.93^\circ\text{C}$, $q_{max}=17423\text{W/m}^2$, $U_{electrode}=0\text{kV}$



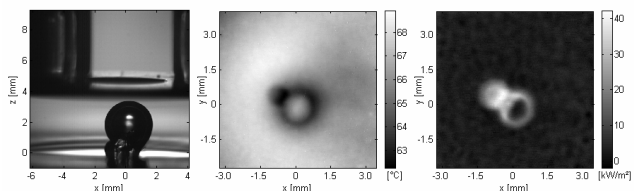
Seq: 20, time=0374ms, gravity=0.07g, $q_{mean}=3785\text{W/m}^2$, $t_{mean}=66.83^\circ\text{C}$, $q_{max}=30959\text{W/m}^2$, $U_{electrode}=0\text{kV}$



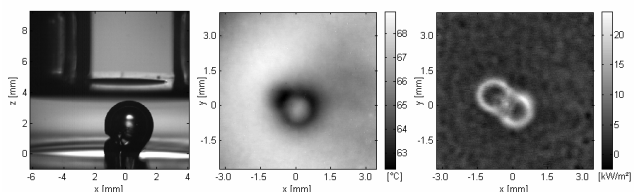
Seq: 20, time=0375ms, gravity=0.07g, $q_{\text{mean}}=3739\text{W/m}^2$, $t_{\text{mean}}=66.83^\circ\text{C}$, $q_{\text{max}}=30535\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



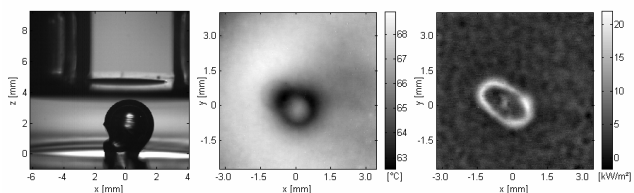
Seq: 20, time=0384ms, gravity=0.06g, $q_{\text{mean}}=4421\text{W/m}^2$, $t_{\text{mean}}=66.82^\circ\text{C}$, $q_{\text{max}}=60013\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



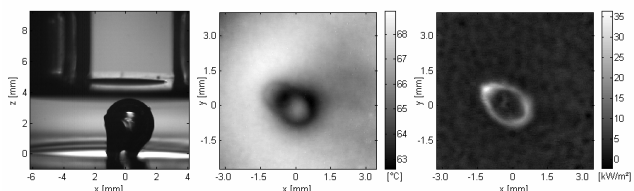
Seq: 20, time=0386ms, gravity=0.06g, $q_{\text{mean}}=4422\text{W/m}^2$, $t_{\text{mean}}=66.78^\circ\text{C}$, $q_{\text{max}}=42552\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



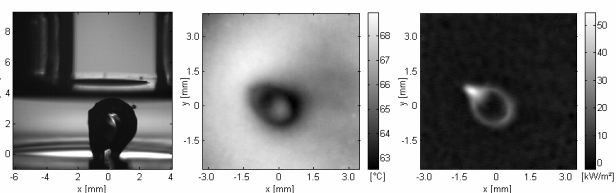
Seq: 20, time=0388ms, gravity=0.06g, $q_{\text{mean}}=3852\text{W/m}^2$, $t_{\text{mean}}=66.77^\circ\text{C}$, $q_{\text{max}}=24096\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



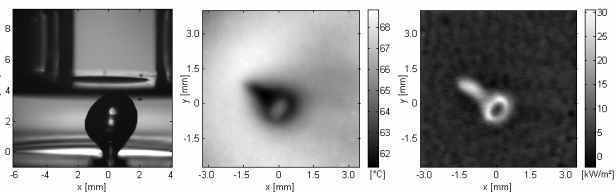
Seq: 20, time=0390ms, gravity=0.07g, $q_{\text{mean}}=3733\text{W/m}^2$, $t_{\text{mean}}=66.76^\circ\text{C}$, $q_{\text{max}}=22126\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



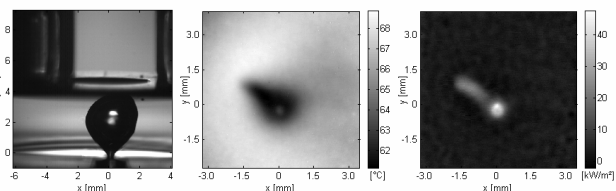
Seq: 20, time=0392ms, gravity=0.06g, $q_{\text{mean}}=3779\text{W/m}^2$, $t_{\text{mean}}=66.76^\circ\text{C}$, $q_{\text{max}}=36666\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



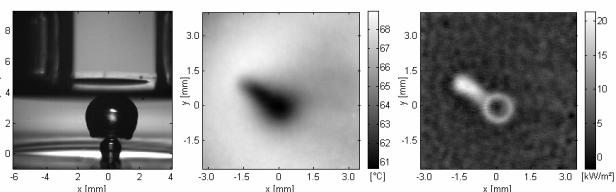
Seq: 20, time=0394ms, gravity=0.07g, $q_{\text{mean}}=3954\text{W/m}^2$, $t_{\text{mean}}=66.75^\circ\text{C}$, $q_{\text{max}}=55085\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



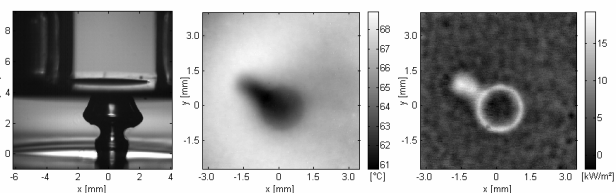
Seq: 20, time=0404ms, gravity=0.05g, $q_{\text{mean}}=3813\text{W/m}^2$, $t_{\text{mean}}=66.7^\circ\text{C}$, $q_{\text{max}}=30904\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



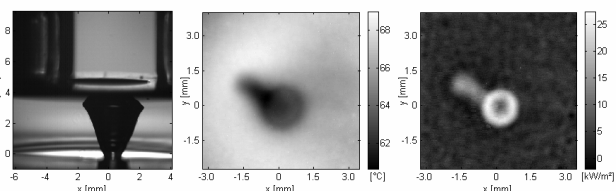
Seq: 20, time=0410ms, gravity=0.05g, $q_{\text{mean}}=3707\text{W/m}^2$, $t_{\text{mean}}=66.68^\circ\text{C}$, $q_{\text{max}}=48084\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



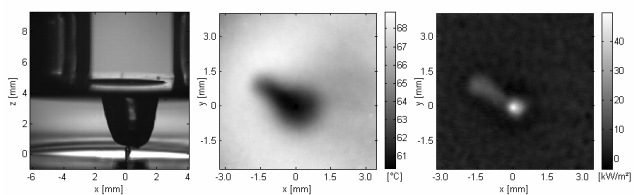
Seq: 20, time=0418ms, gravity=0.07g, $q_{\text{mean}}=3589\text{W/m}^2$, $t_{\text{mean}}=66.67^\circ\text{C}$, $q_{\text{max}}=21591\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



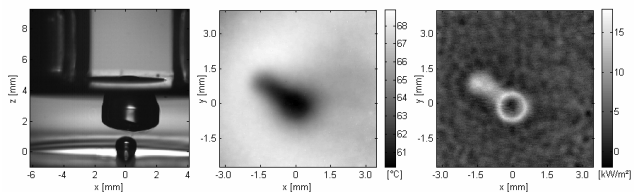
Seq: 20, time=0428ms, gravity=0.06g, $q_{\text{mean}}=3697\text{W/m}^2$, $t_{\text{mean}}=66.66^\circ\text{C}$, $q_{\text{max}}=19447\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



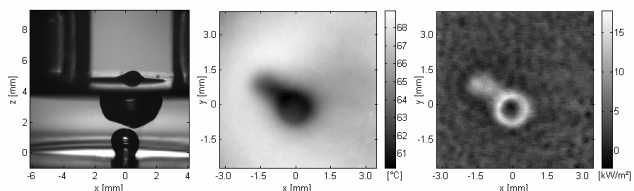
Seq: 20, time=0434ms, gravity=0.05g, $q_{\text{mean}}=4052\text{W/m}^2$, $t_{\text{mean}}=66.64^\circ\text{C}$, $q_{\text{max}}=27637\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



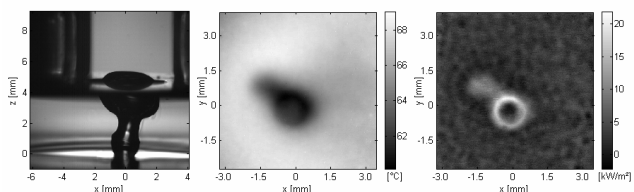
Seq: 20, time=0438ms, gravity=0.06g, $q_{\text{mean}}=3424\text{W/m}^2$, $t_{\text{mean}}=66.62^\circ\text{C}$, $q_{\text{max}}=50343\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



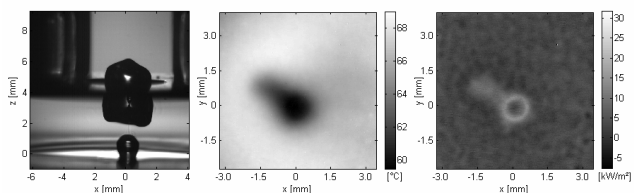
Seq: 20, time=0450ms, gravity=0.05g, $q_{\text{mean}}=3495\text{W/m}^2$, $t_{\text{mean}}=66.64^\circ\text{C}$, $q_{\text{max}}=16613\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



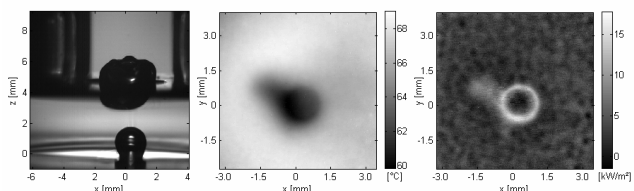
Seq: 20, time=0466ms, gravity=0.05g, $q_{\text{mean}}=3495\text{W/m}^2$, $t_{\text{mean}}=66.65^\circ\text{C}$, $q_{\text{max}}=17168\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



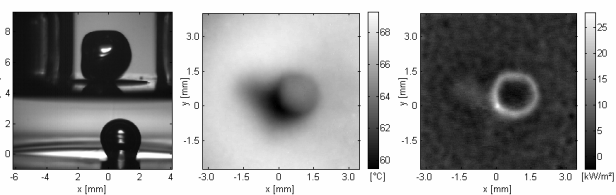
Seq: 20, time=0478ms, gravity=0.05g, $q_{\text{mean}}=3515\text{W/m}^2$, $t_{\text{mean}}=66.66^\circ\text{C}$, $q_{\text{max}}=22099\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



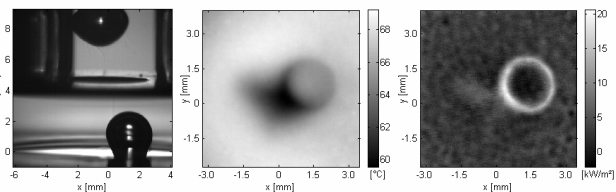
Seq: 20, time=0496ms, gravity=0.06g, $q_{\text{mean}}=3402\text{W/m}^2$, $t_{\text{mean}}=66.68^\circ\text{C}$, $q_{\text{max}}=31918\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



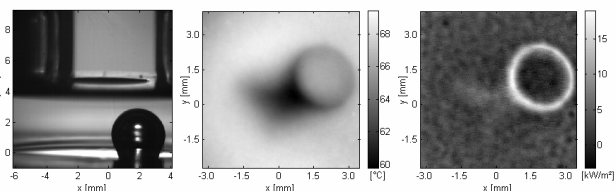
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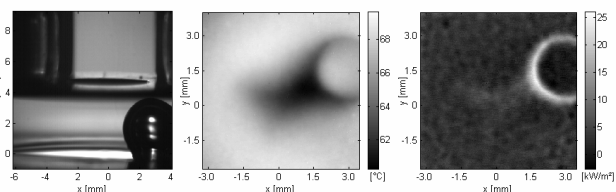
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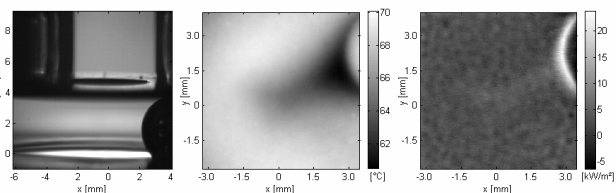
Seq: 20, time=0610ms, gravity=0.02g, $q_{\text{mean}}=3514\text{W/m}^2$, $t_{\text{mean}}=66.79^\circ\text{C}$, $q_{\text{max}}=20872\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



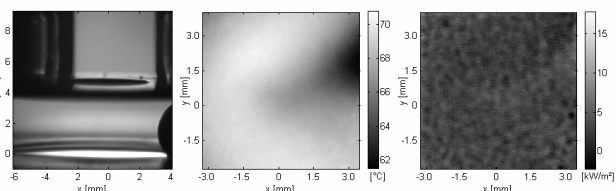
Seq: 20, time=0650ms, gravity=0.03g, $q_{\text{mean}}=3533\text{W/m}^2$, $t_{\text{mean}}=66.79^\circ\text{C}$, $q_{\text{max}}=19229\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



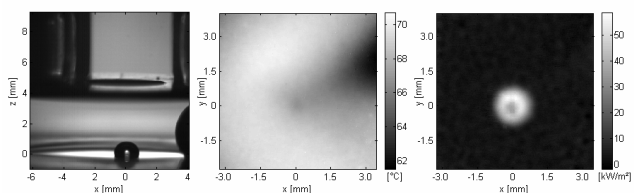
Seq: 20, time=0710ms, gravity=0.03g, $q_{\text{mean}}=3467\text{W/m}^2$, $t_{\text{mean}}=66.83^\circ\text{C}$, $q_{\text{max}}=26256\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



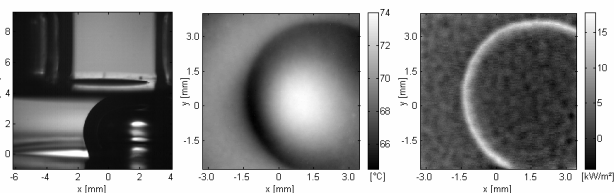
Seq: 20, time=0870ms, gravity=0g, $q_{\text{mean}}=3425\text{W/m}^2$, $t_{\text{mean}}=67.21^\circ\text{C}$, $q_{\text{max}}=24010\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



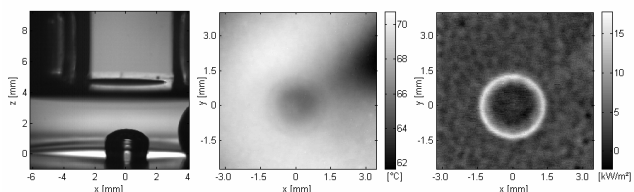
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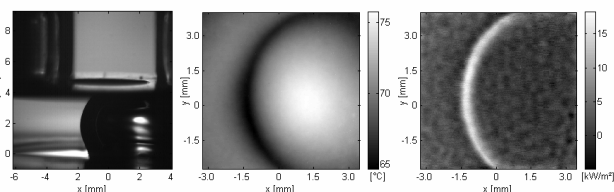
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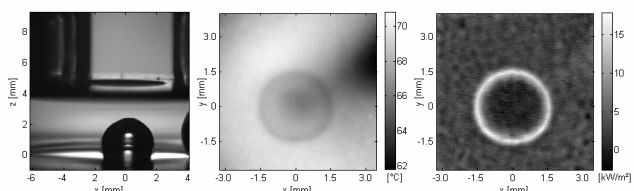
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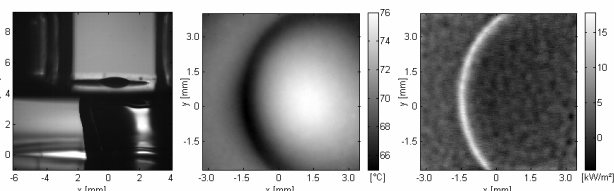
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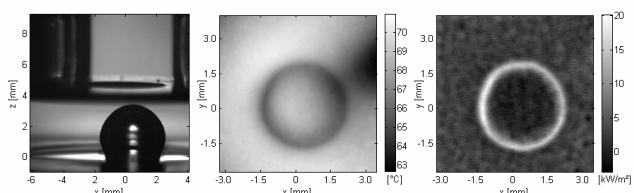
Seq: 20, time=1450ms, gravity=-0.01g, $q_{\text{mean}}=2233\text{W/m}^2$, $t_{\text{mean}}=70.16^\circ\text{C}$, $q_{\text{max}}=18440\text{W/m}^2$, $U_{\text{electrode}}=11\text{kV}$



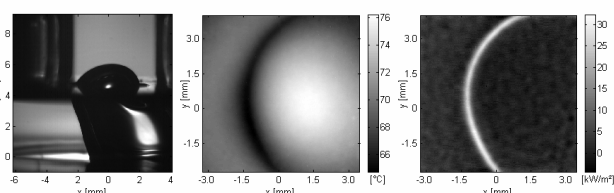
Seq: 20, time=1100ms, gravity=-0.02g, $q_{\text{mean}}=3605\text{W/m}^2$, $t_{\text{mean}}=68.11^\circ\text{C}$, $q_{\text{max}}=18009\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



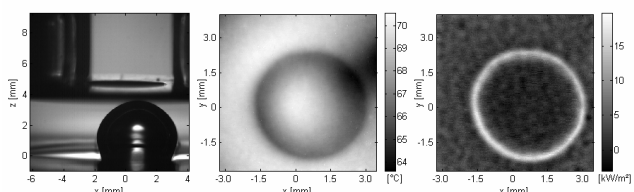
Seq: 20, time=1460ms, gravity=-0.01g, $q_{\text{mean}}=1971\text{W/m}^2$, $t_{\text{mean}}=70.34^\circ\text{C}$, $q_{\text{max}}=17445\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



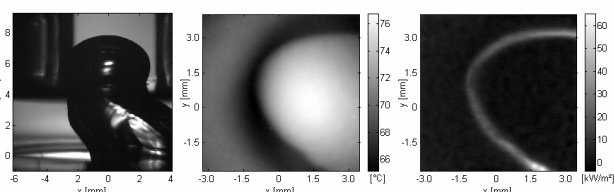
Seq: 20, time=1150ms, gravity=-0.01g, $q_{\text{mean}}=3579\text{W/m}^2$, $t_{\text{mean}}=68.06^\circ\text{C}$, $q_{\text{max}}=20361\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



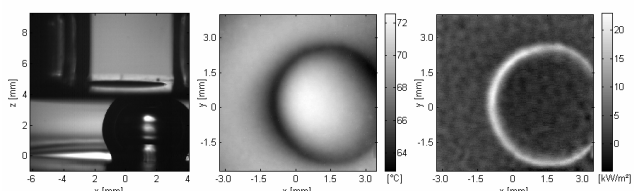
Seq: 20, time=1470ms, gravity=-0.01g, $q_{\text{mean}}=2631\text{W/m}^2$, $t_{\text{mean}}=70.5^\circ\text{C}$, $q_{\text{max}}=32597\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



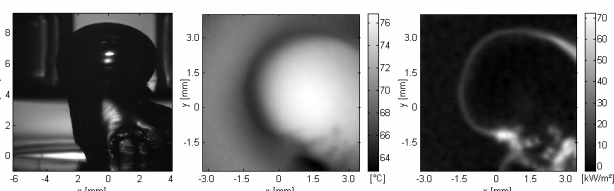
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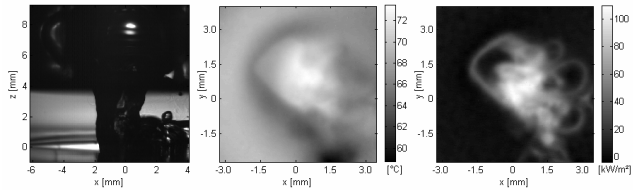
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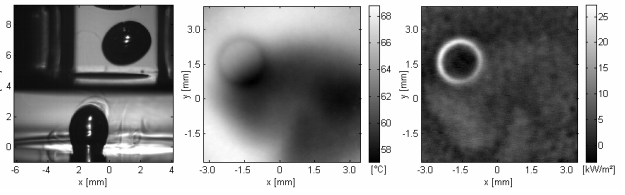
Seq: 20, time=1300ms, gravity=-0.01g, $q_{\text{mean}}=3196\text{W/m}^2$, $t_{\text{mean}}=68.36^\circ\text{C}$, $q_{\text{max}}=23145\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



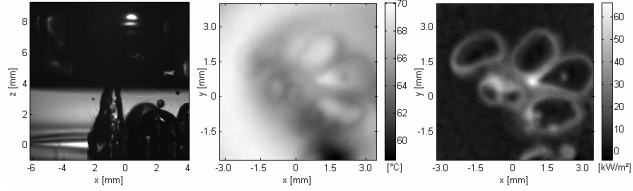
Seq: 20, time=1500ms, gravity=-0.02g, $q_{\text{mean}}=6512\text{W/m}^2$, $t_{\text{mean}}=70.19^\circ\text{C}$, $q_{\text{max}}=72584\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



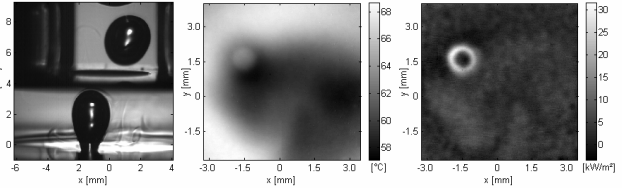
Seq: 20, time=1528ms, gravity=-0.01g, $q_{\text{mean}}=18954\text{W/m}^2$, $t_{\text{mean}}=67.63^\circ\text{C}$, $q_{\text{max}}=110642\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



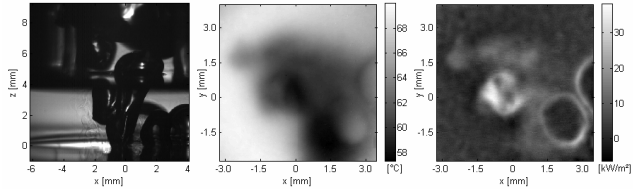
Seq: 20, time=1852ms, gravity=-0.03g, $q_{\text{mean}}=4126\text{W/m}^2$, $t_{\text{mean}}=62.73^\circ\text{C}$, $q_{\text{max}}=27448\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



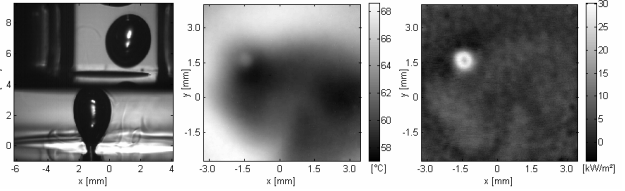
Seq: 20, time=1538ms, gravity=-0.03g, $q_{\text{mean}}=9285\text{W/m}^2$, $t_{\text{mean}}=66.48^\circ\text{C}$, $q_{\text{max}}=66938\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



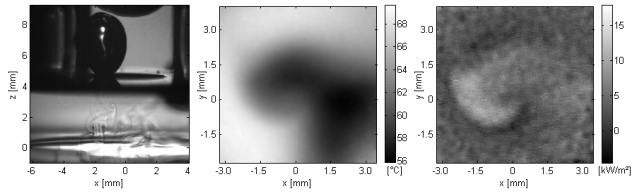
Seq: 20, time=1862ms, gravity=-0.03g, $q_{\text{mean}}=4024\text{W/m}^2$, $t_{\text{mean}}=62.67^\circ\text{C}$, $q_{\text{max}}=31891\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



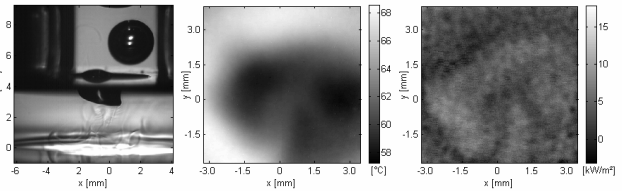
Seq: 20, time=1582ms, gravity=-0.02g, $q_{\text{mean}}=5807\text{W/m}^2$, $t_{\text{mean}}=64.16^\circ\text{C}$, $q_{\text{max}}=38709\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



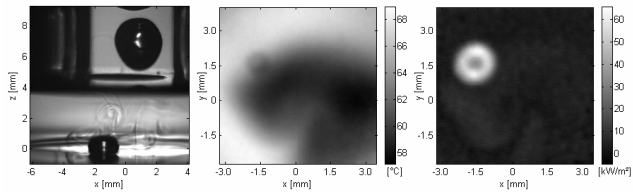
Seq: 20, time=1866ms, gravity=-0.04g, $q_{\text{mean}}=3926\text{W/m}^2$, $t_{\text{mean}}=62.65^\circ\text{C}$, $q_{\text{max}}=30412\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



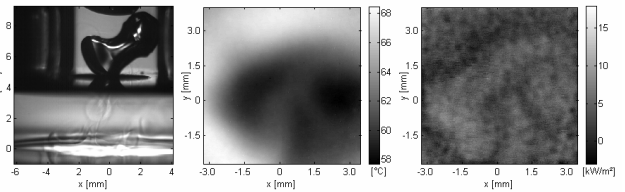
Seq: 20, time=1710ms, gravity=-0.03g, $q_{\text{mean}}=3798\text{W/m}^2$, $t_{\text{mean}}=63.33^\circ\text{C}$, $q_{\text{max}}=12451\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



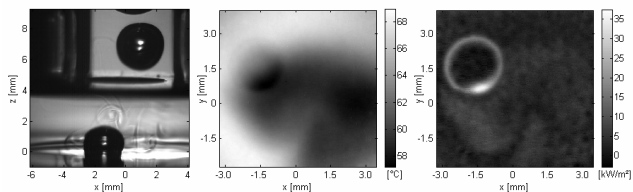
Seq: 20, time=1886ms, gravity=-0.03g, $q_{\text{mean}}=3623\text{W/m}^2$, $t_{\text{mean}}=62.64^\circ\text{C}$, $q_{\text{max}}=9987\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



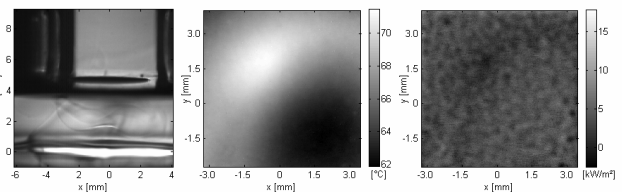
Seq: 20, time=1834ms, gravity=-0.03g, $q_{\text{mean}}=6382\text{W/m}^2$, $t_{\text{mean}}=62.97^\circ\text{C}$, $q_{\text{max}}=66292\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



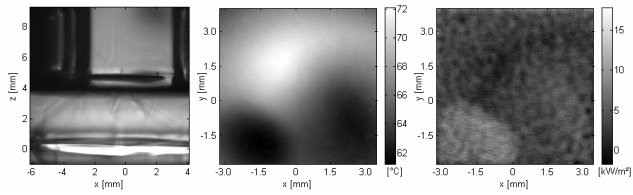
Seq: 20, time=1922ms, gravity=-0.03g, $q_{\text{mean}}=3438\text{W/m}^2$, $t_{\text{mean}}=62.64^\circ\text{C}$, $q_{\text{max}}=9360\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



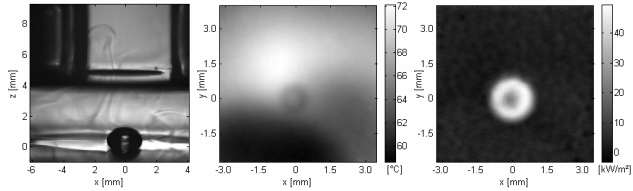
Seq: 20, time=1840ms, gravity=-0.03g, $q_{\text{mean}}=4363\text{W/m}^2$, $t_{\text{mean}}=62.82^\circ\text{C}$, $q_{\text{max}}=37812\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



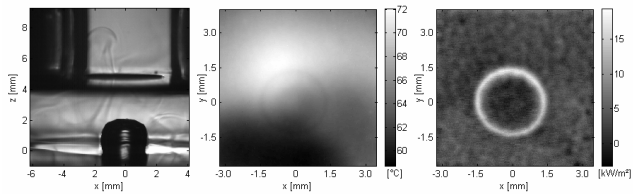
Seq: 20, time=3300ms, gravity=0.02g, $q_{\text{mean}}=3392\text{W/m}^2$, $t_{\text{mean}}=66.59^\circ\text{C}$, $q_{\text{max}}=8725\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



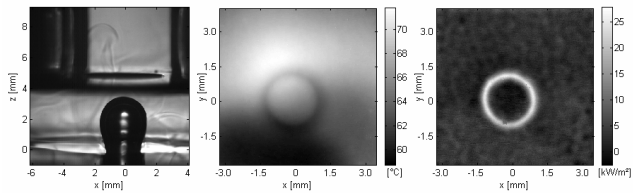
Seq: 20, time=3600ms, gravity=0.02g, $q_{\text{mean}}=3920\text{W/m}^2$, $t_{\text{mean}}=66.31^\circ\text{C}$, $q_{\text{max}}=10910\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



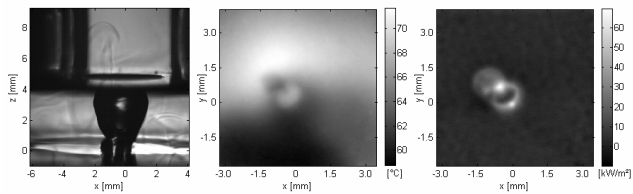
Seq: 20, time=3914ms, gravity=0.02g, $q_{\text{mean}}=5714\text{W/m}^2$, $t_{\text{mean}}=65.73^\circ\text{C}$, $q_{\text{max}}=50085\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



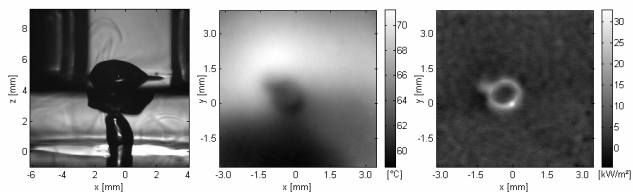
Seq: 20, time=3922ms, gravity=0g, $q_{\text{mean}}=3745\text{W/m}^2$, $t_{\text{mean}}=65.65^\circ\text{C}$, $q_{\text{max}}=19629\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 20, time=3938ms, gravity=0.01g, $q_{\text{mean}}=4115\text{W/m}^2$, $t_{\text{mean}}=65.56^\circ\text{C}$, $q_{\text{max}}=28057\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 20, time=3954ms, gravity=0.02g, $q_{\text{mean}}=4704\text{W/m}^2$, $t_{\text{mean}}=65.41^\circ\text{C}$, $q_{\text{max}}=70326\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

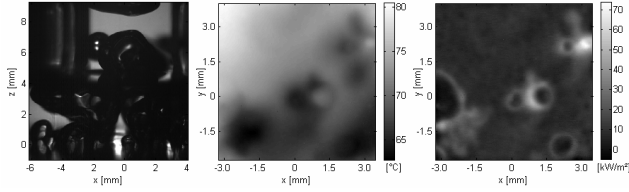


Seq: 20, time=3976ms, gravity=0.02g, $q_{\text{mean}}=3691\text{W/m}^2$, $t_{\text{mean}}=65.28^\circ\text{C}$, $q_{\text{max}}=33232\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

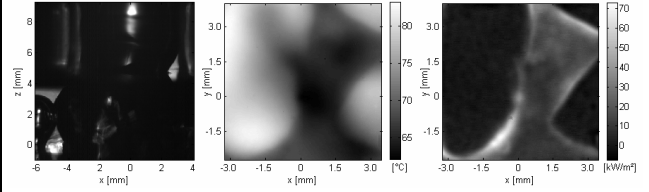
8.5. Data sets of sequence 23

General parameters of sequence 23:

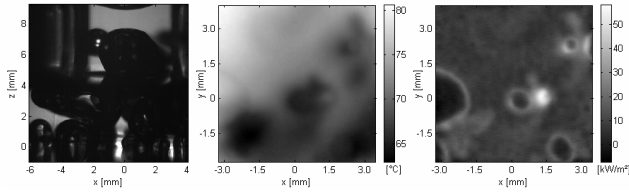
- Electrical heating power $\dot{q}_{el} = 10564 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 42.05 \text{ }^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.3 \text{ }^\circ\text{C}$



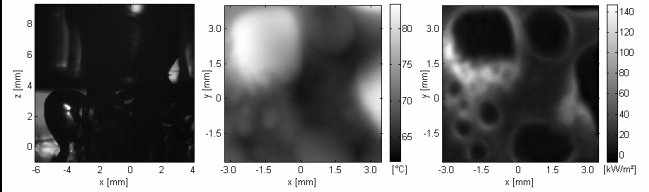
Seq: 23, time=0005ms, gravity=0.18g, $q_{mean}=11172 \text{ W/m}^2$, $t_{mean}=70.18 \text{ }^\circ\text{C}$, $q_{max}=74210 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



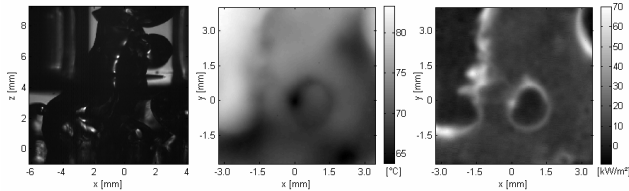
Seq: 23, time=0500ms, gravity=0.07g, $q_{mean}=8956 \text{ W/m}^2$, $t_{mean}=71.58 \text{ }^\circ\text{C}$, $q_{max}=73801 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



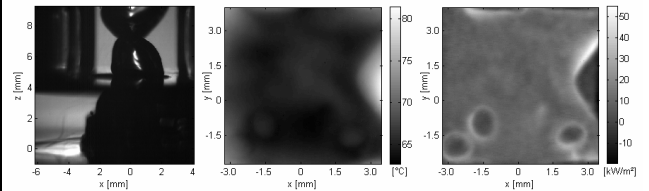
Seq: 23, time=0010ms, gravity=0.17g, $q_{mean}=9890 \text{ W/m}^2$, $t_{mean}=70.19 \text{ }^\circ\text{C}$, $q_{max}=58919 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



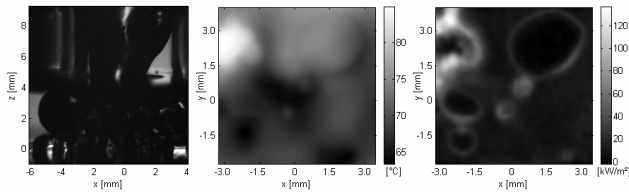
Seq: 23, time=0540ms, gravity=0.06g, $q_{mean}=21841 \text{ W/m}^2$, $t_{mean}=69.5 \text{ }^\circ\text{C}$, $q_{max}=148337 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



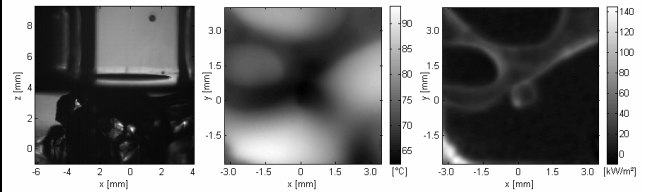
Seq: 23, time=0080ms, gravity=0.16g, $q_{mean}=11249 \text{ W/m}^2$, $t_{mean}=71.56 \text{ }^\circ\text{C}$, $q_{max}=70812 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



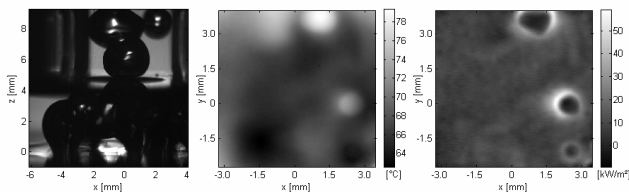
Seq: 23, time=0650ms, gravity=0.05g, $q_{mean}=10630 \text{ W/m}^2$, $t_{mean}=65.96 \text{ }^\circ\text{C}$, $q_{max}=55321 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



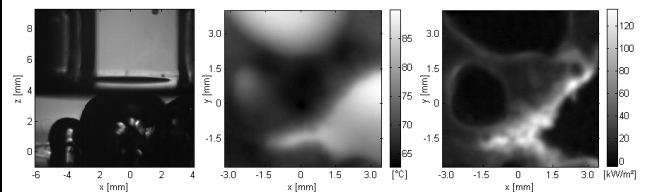
Seq: 23, time=0116ms, gravity=0.15g, $q_{mean}=18244 \text{ W/m}^2$, $t_{mean}=70.15 \text{ }^\circ\text{C}$, $q_{max}=137824 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



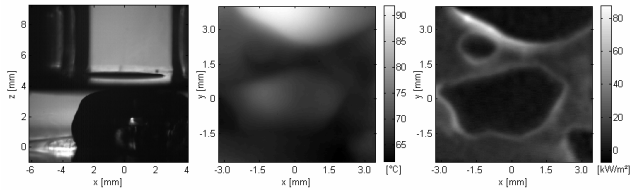
Seq: 23, time=0984ms, gravity=0.02g, $q_{mean}=9803 \text{ W/m}^2$, $t_{mean}=74.93 \text{ }^\circ\text{C}$, $q_{max}=146077 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



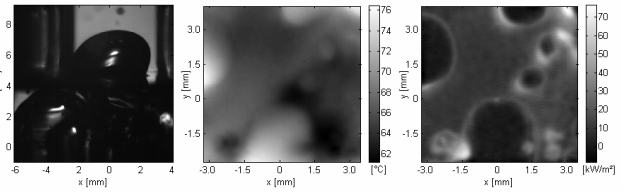
Seq: 23, time=0232ms, gravity=0.13g, $q_{mean}=10679 \text{ W/m}^2$, $t_{mean}=67.59 \text{ }^\circ\text{C}$, $q_{max}=59804 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



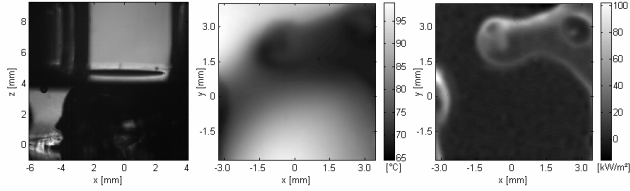
Seq: 23, time=1032ms, gravity=0.03g, $q_{mean}=22352 \text{ W/m}^2$, $t_{mean}=72.09 \text{ }^\circ\text{C}$, $q_{max}=135581 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



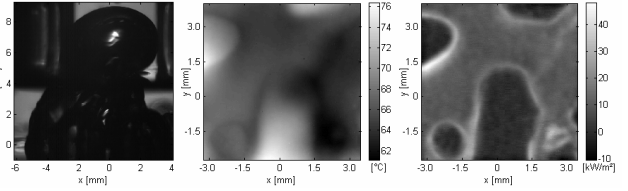
Seq: 23, time=1082ms, gravity=0.02g, $q_{\text{mean}}=11070\text{W/m}^2$, $t_{\text{mean}}=68.88^\circ\text{C}$, $q_{\text{max}}=88415\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



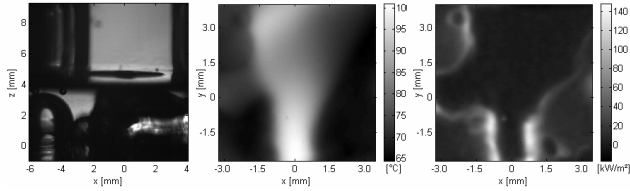
Seq: 23, time=1970ms, gravity=0.01g, $q_{\text{mean}}=13586\text{W/m}^2$, $t_{\text{mean}}=66.07^\circ\text{C}$, $q_{\text{max}}=76993\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



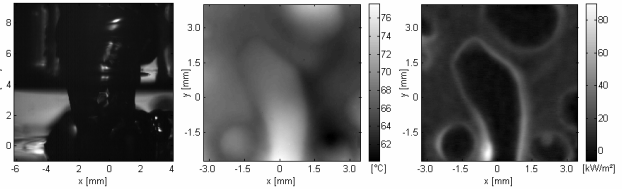
Seq: 23, time=1500ms, gravity=0.02g, $q_{\text{mean}}=7740\text{W/m}^2$, $t_{\text{mean}}=79.39^\circ\text{C}$, $q_{\text{max}}=103462\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



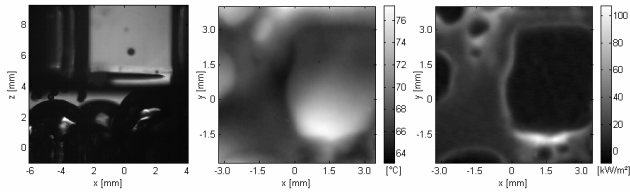
Seq: 23, time=1990ms, gravity=0.02g, $q_{\text{mean}}=9523\text{W/m}^2$, $t_{\text{mean}}=66.07^\circ\text{C}$, $q_{\text{max}}=48564\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



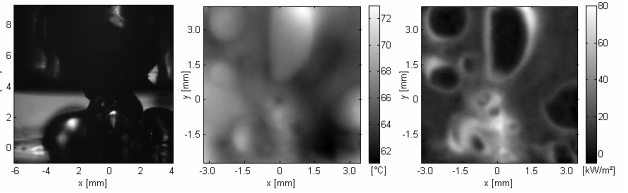
Seq: 23, time=1600ms, gravity=0.01g, $q_{\text{mean}}=15075\text{W/m}^2$, $t_{\text{mean}}=75.64^\circ\text{C}$, $q_{\text{max}}=149551\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



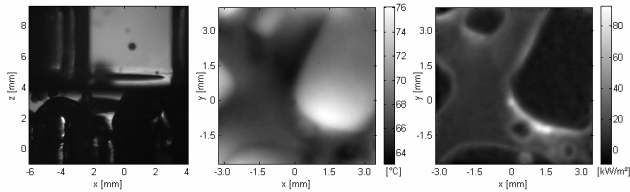
Seq: 23, time=2010ms, gravity=0.01g, $q_{\text{mean}}=10165\text{W/m}^2$, $t_{\text{mean}}=66.31^\circ\text{C}$, $q_{\text{max}}=91030\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



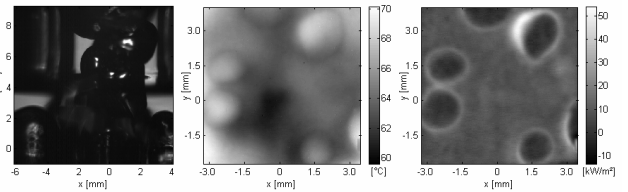
Seq: 23, time=1904ms, gravity=0.02g, $q_{\text{mean}}=14258\text{W/m}^2$, $t_{\text{mean}}=68.26^\circ\text{C}$, $q_{\text{max}}=108368\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



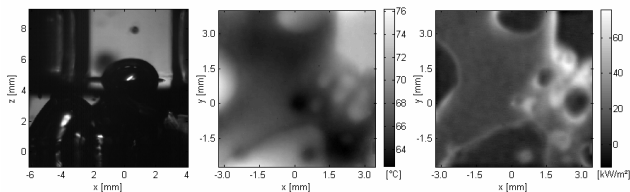
Seq: 23, time=2030ms, gravity=0.01g, $q_{\text{mean}}=17747\text{W/m}^2$, $t_{\text{mean}}=65.42^\circ\text{C}$, $q_{\text{max}}=80831\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



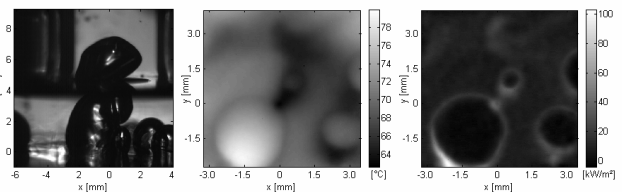
Seq: 23, time=1920ms, gravity=0.02g, $q_{\text{mean}}=11043\text{W/m}^2$, $t_{\text{mean}}=67.88^\circ\text{C}$, $q_{\text{max}}=93384\text{W/m}^2$, $U_{\text{electrode}}=9\text{kV}$



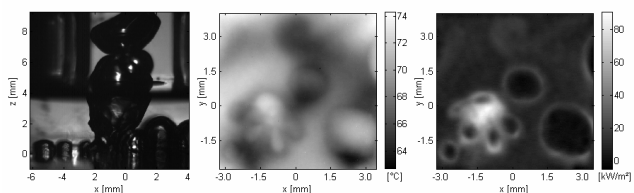
Seq: 23, time=2100ms, gravity=0.02g, $q_{\text{mean}}=9753\text{W/m}^2$, $t_{\text{mean}}=64.25^\circ\text{C}$, $q_{\text{max}}=54604\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



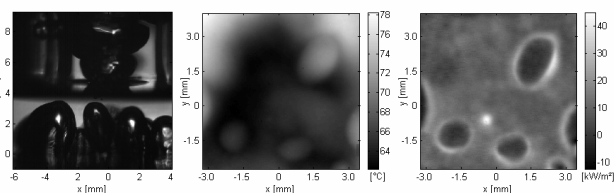
Seq: 23, time=1950ms, gravity=0.02g, $q_{\text{mean}}=15397\text{W/m}^2$, $t_{\text{mean}}=67.08^\circ\text{C}$, $q_{\text{max}}=76642\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



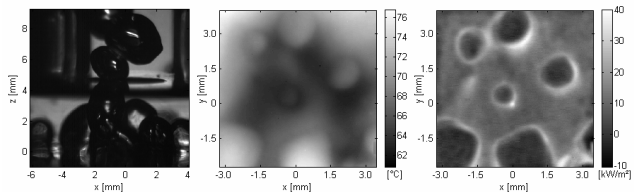
Seq: 23, time=2372ms, gravity=0.02g, $q_{\text{mean}}=9968\text{W/m}^2$, $t_{\text{mean}}=69.23^\circ\text{C}$, $q_{\text{max}}=104160\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



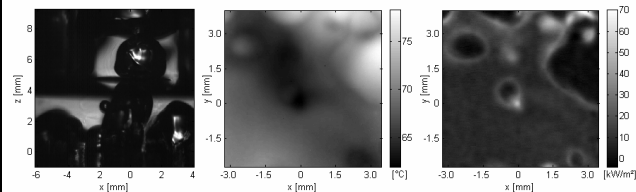
Seq: 23, time=2400ms, gravity=0.01g, $q_{\text{mean}}=13715\text{W/m}^2$, $t_{\text{mean}}=68.5^\circ\text{C}$, $q_{\text{max}}=91272\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



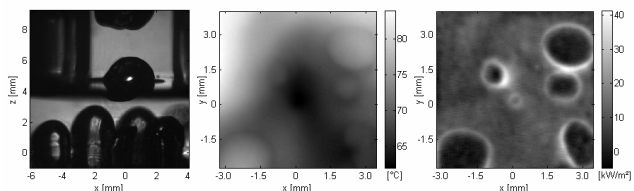
Seq: 23, time=3500ms, gravity=0.01g, $q_{\text{mean}}=10259\text{W/m}^2$, $t_{\text{mean}}=66.31^\circ\text{C}$, $q_{\text{max}}=45467\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



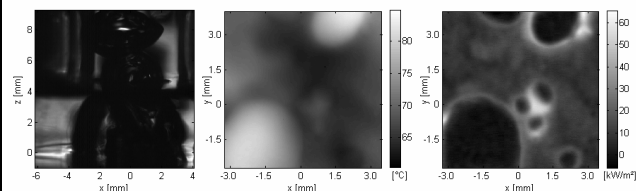
Seq: 23, time=2500ms, gravity=0.02g, $q_{\text{mean}}=10262\text{W/m}^2$, $t_{\text{mean}}=67.56^\circ\text{C}$, $q_{\text{max}}=40495\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



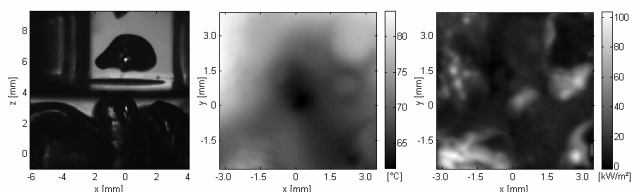
Seq: 23, time=3750ms, gravity=0.02g, $q_{\text{mean}}=10990\text{W/m}^2$, $t_{\text{mean}}=67.66^\circ\text{C}$, $q_{\text{max}}=70907\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



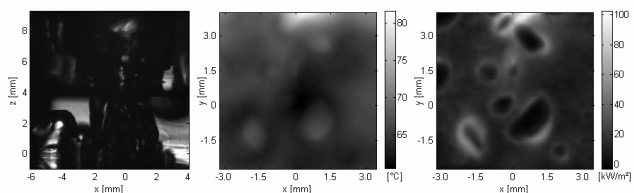
Seq: 23, time=2850ms, gravity=0.02g, $q_{\text{mean}}=9712\text{W/m}^2$, $t_{\text{mean}}=70.94^\circ\text{C}$, $q_{\text{max}}=41696\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



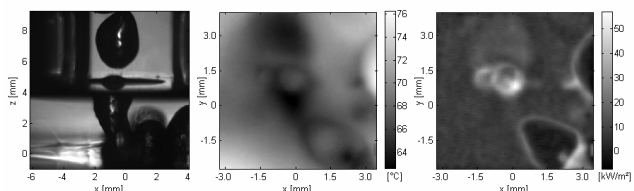
Seq: 23, time=3990ms, gravity=0.01g, $q_{\text{mean}}=11022\text{W/m}^2$, $t_{\text{mean}}=68.81^\circ\text{C}$, $q_{\text{max}}=65986\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 23, time=2864ms, gravity=0.02g, $q_{\text{mean}}=19231\text{W/m}^2$, $t_{\text{mean}}=70.76^\circ\text{C}$, $q_{\text{max}}=104684\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 23, time=3000ms, gravity=0.02g, $q_{\text{mean}}=16205\text{W/m}^2$, $t_{\text{mean}}=65.22^\circ\text{C}$, $q_{\text{max}}=102968\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

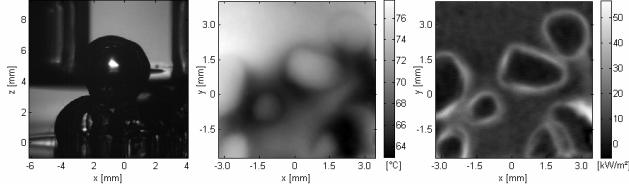


Seq: 23, time=3250ms, gravity=0.02g, $q_{\text{mean}}=10101\text{W/m}^2$, $t_{\text{mean}}=67.88^\circ\text{C}$, $q_{\text{max}}=57597\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

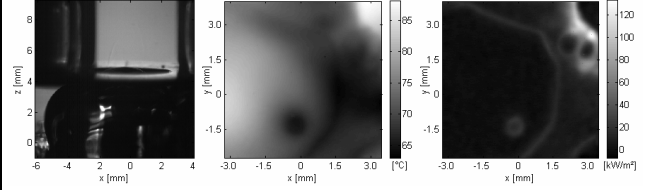
8.6. Data sets of sequence 24

General parameters of sequence 24:

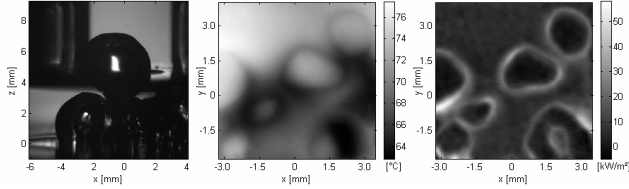
- Electrical heating power $\dot{q}_{el} = 7324 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 42.11 \text{ }^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.36 \text{ }^\circ\text{C}$



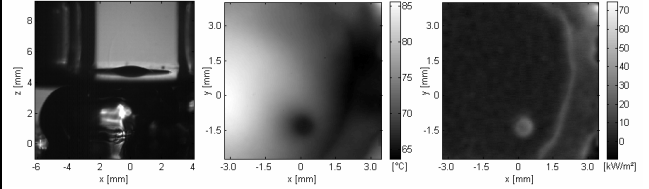
Seq: 24, time=0005ms, gravity=0.09g, $q_{mean}=9535 \text{ W/m}^2$, $t_{mean}=69.44 \text{ }^\circ\text{C}$, $q_{max}=57408 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



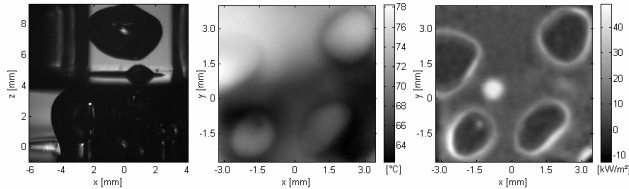
Seq: 24, time=0494ms, gravity=0.01g, $q_{mean}=8450 \text{ W/m}^2$, $t_{mean}=72.05 \text{ }^\circ\text{C}$, $q_{max}=133648 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



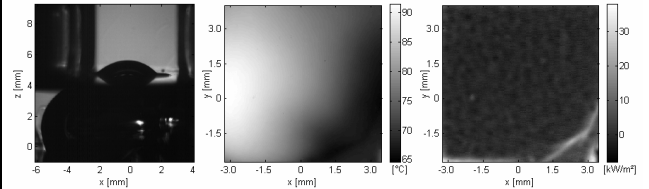
Seq: 24, time=0010ms, gravity=0.1g, $q_{mean}=9512 \text{ W/m}^2$, $t_{mean}=69.3 \text{ }^\circ\text{C}$, $q_{max}=58453 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



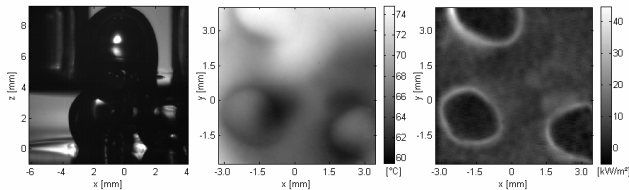
Seq: 24, time=0520ms, gravity=0.01g, $q_{mean}=3556 \text{ W/m}^2$, $t_{mean}=72.47 \text{ }^\circ\text{C}$, $q_{max}=75472 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



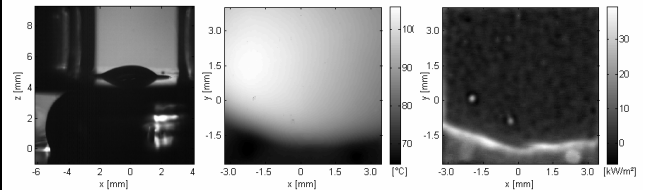
Seq: 24, time=0050ms, gravity=0.08g, $q_{mean}=9717 \text{ W/m}^2$, $t_{mean}=68.6 \text{ }^\circ\text{C}$, $q_{max}=49351 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



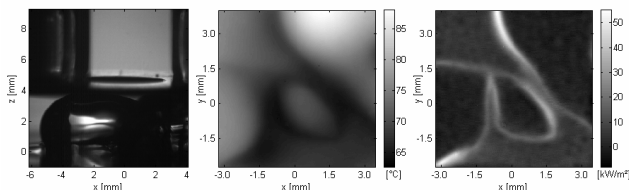
Seq: 24, time=0600ms, gravity=0g, $q_{mean}=603 \text{ W/m}^2$, $t_{mean}=78.13 \text{ }^\circ\text{C}$, $q_{max}=38157 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



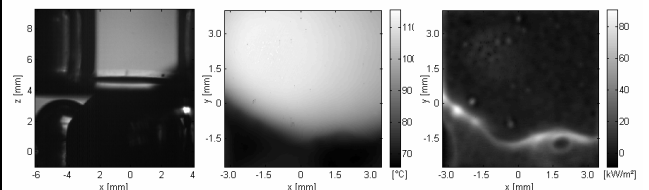
Seq: 24, time=0150ms, gravity=0.07g, $q_{mean}=6859 \text{ W/m}^2$, $t_{mean}=66.83 \text{ }^\circ\text{C}$, $q_{max}=45288 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



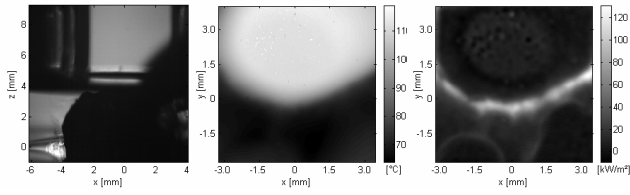
Seq: 24, time=0800ms, gravity=0g, $q_{mean}=2994 \text{ W/m}^2$, $t_{mean}=90.37 \text{ }^\circ\text{C}$, $q_{max}=39822 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



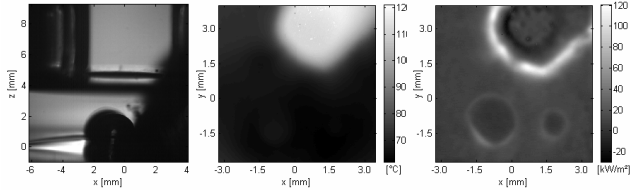
Seq: 24, time=0400ms, gravity=0.02g, $q_{mean}=6077 \text{ W/m}^2$, $t_{mean}=71.15 \text{ }^\circ\text{C}$, $q_{max}=55865 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



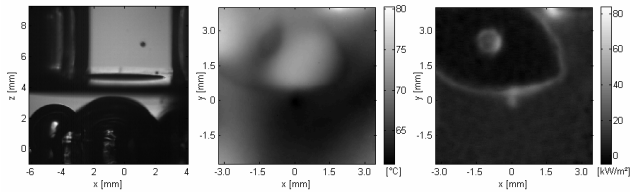
Seq: 24, time=0940ms, gravity=0g, $q_{mean}=7216 \text{ W/m}^2$, $t_{mean}=95.89 \text{ }^\circ\text{C}$, $q_{max}=91568 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



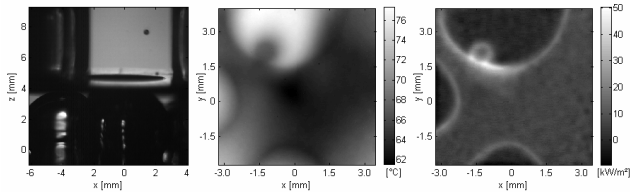
Seq: 24, time=1060ms, gravity=-0.01g, $q_{\text{mean}}=13418\text{W/m}^2$, $t_{\text{mean}}=90.94^\circ\text{C}$, $q_{\text{max}}=131996\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



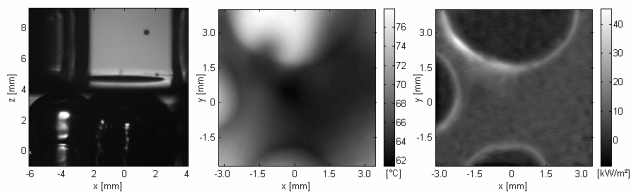
Seq: 24, time=1230ms, gravity=-0.02g, $q_{\text{mean}}=16064\text{W/m}^2$, $t_{\text{mean}}=75.18^\circ\text{C}$, $q_{\text{max}}=121999\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



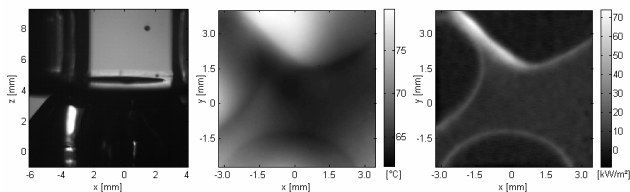
Seq: 24, time=1360ms, gravity=-0.02g, $q_{\text{mean}}=6945\text{W/m}^2$, $t_{\text{mean}}=66.64^\circ\text{C}$, $q_{\text{max}}=84777\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



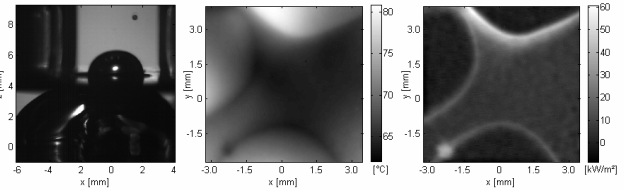
Seq: 24, time=1444ms, gravity=0g, $q_{\text{mean}}=6570\text{W/m}^2$, $t_{\text{mean}}=66.66^\circ\text{C}$, $q_{\text{max}}=50706\text{W/m}^2$, $U_{\text{electrode}}=0\text{kV}$



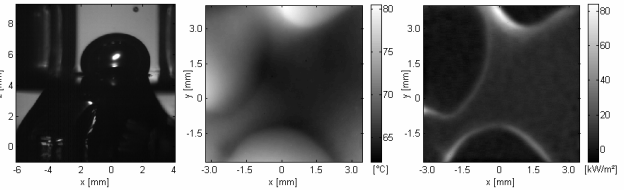
Seq: 24, time=1454ms, gravity=-0.02g, $q_{\text{mean}}=6080\text{W/m}^2$, $t_{\text{mean}}=66.81^\circ\text{C}$, $q_{\text{max}}=45846\text{W/m}^2$, $U_{\text{electrode}}=6\text{kV}$



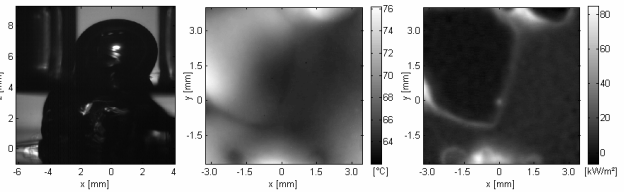
Seq: 24, time=1480ms, gravity=-0.01g, $q_{\text{mean}}=6571\text{W/m}^2$, $t_{\text{mean}}=67.38^\circ\text{C}$, $q_{\text{max}}=74884\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



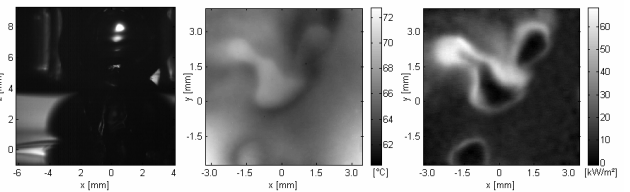
Seq: 24, time=1500ms, gravity=0g, $q_{\text{mean}}=7490\text{W/m}^2$, $t_{\text{mean}}=67.5^\circ\text{C}$, $q_{\text{max}}=61260\text{W/m}^2$, $U_{\text{electrode}}=9\text{kV}$



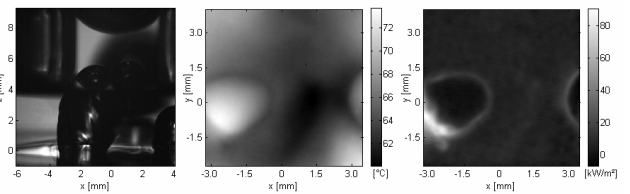
Seq: 24, time=1515ms, gravity=0g, $q_{\text{mean}}=7671\text{W/m}^2$, $t_{\text{mean}}=67.53^\circ\text{C}$, $q_{\text{max}}=84399\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



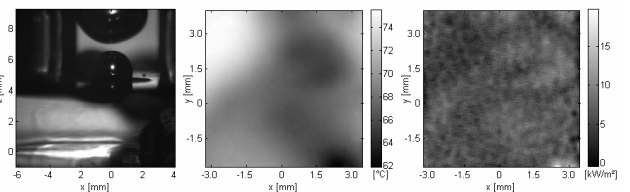
Seq: 24, time=1530ms, gravity=-0.01g, $q_{\text{mean}}=9316\text{W/m}^2$, $t_{\text{mean}}=67.3^\circ\text{C}$, $q_{\text{max}}=85533\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



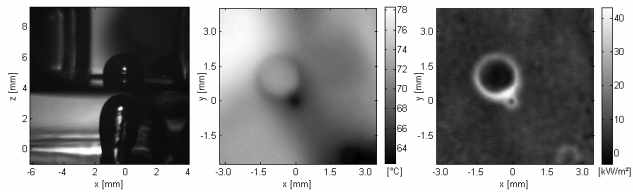
Seq: 24, time=1562ms, gravity=-0.01g, $q_{\text{mean}}=15823\text{W/m}^2$, $t_{\text{mean}}=65.66^\circ\text{C}$, $q_{\text{max}}=68930\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



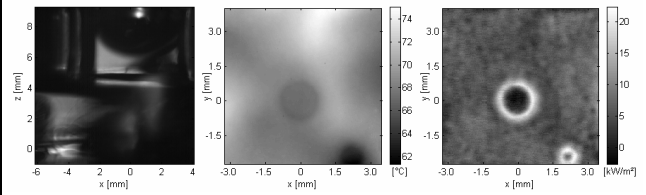
Seq: 24, time=1742ms, gravity=-0.01g, $q_{\text{mean}}=8725\text{W/m}^2$, $t_{\text{mean}}=64.84^\circ\text{C}$, $q_{\text{max}}=91489\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



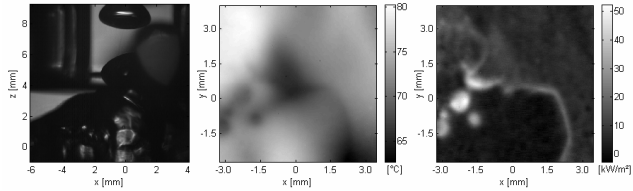
Seq: 24, time=2186ms, gravity=0g, $q_{\text{mean}}=6041\text{W/m}^2$, $t_{\text{mean}}=68.72^\circ\text{C}$, $q_{\text{max}}=19951\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



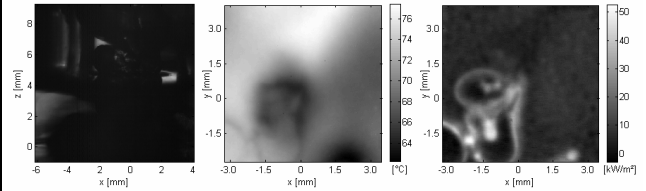
Seq: 24, time=2362ms, gravity=0g, $q_{\text{mean}}=6782\text{W/m}^2$, $t_{\text{mean}}=70.97^\circ\text{C}$, $q_{\text{max}}=43540\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



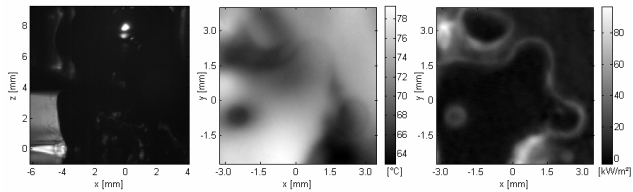
Seq: 24, time=3250ms, gravity=-0.03g, $q_{\text{mean}}=6510\text{W/m}^2$, $t_{\text{mean}}=69.16^\circ\text{C}$, $q_{\text{max}}=22517\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



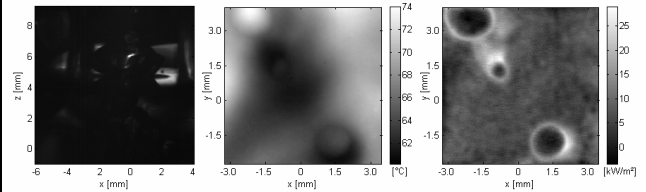
Seq: 24, time=2548ms, gravity=-0.01g, $q_{\text{mean}}=7700\text{W/m}^2$, $t_{\text{mean}}=72.21^\circ\text{C}$, $q_{\text{max}}=52858\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



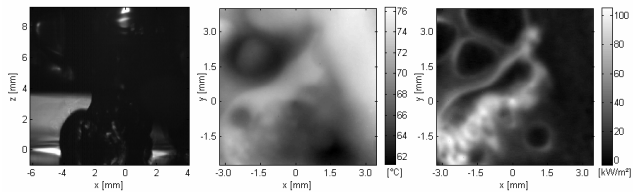
Seq: 24, time=3500ms, gravity=-0.03g, $q_{\text{mean}}=9347\text{W/m}^2$, $t_{\text{mean}}=70.61^\circ\text{C}$, $q_{\text{max}}=53135\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



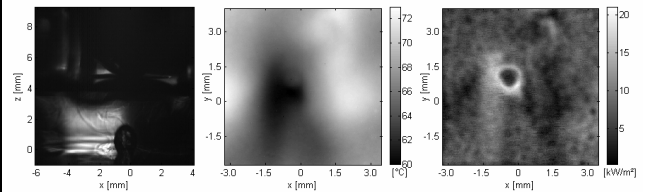
Seq: 24, time=2600ms, gravity=0.01g, $q_{\text{mean}}=10704\text{W/m}^2$, $t_{\text{mean}}=71.28^\circ\text{C}$, $q_{\text{max}}=97470\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



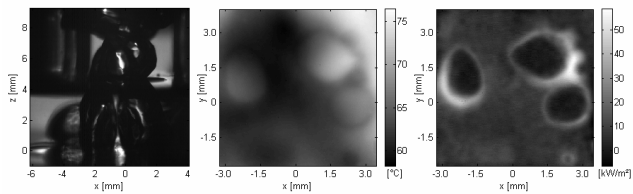
Seq: 24, time=3750ms, gravity=-0.01g, $q_{\text{mean}}=7407\text{W/m}^2$, $t_{\text{mean}}=65.99^\circ\text{C}$, $q_{\text{max}}=29296\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



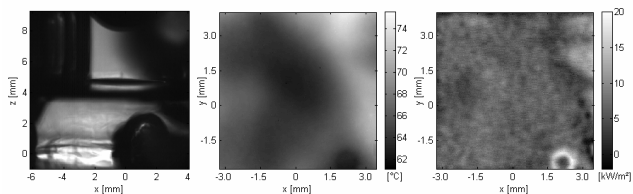
Seq: 24, time=2624ms, gravity=-0.01g, $q_{\text{mean}}=23307\text{W/m}^2$, $t_{\text{mean}}=68.58^\circ\text{C}$, $q_{\text{max}}=106584\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 24, time=3990ms, gravity=-0.03g, $q_{\text{mean}}=6786\text{W/m}^2$, $t_{\text{mean}}=66.92^\circ\text{C}$, $q_{\text{max}}=21167\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 24, time=2730ms, gravity=0g, $q_{\text{mean}}=9386\text{W/m}^2$, $t_{\text{mean}}=63.79^\circ\text{C}$, $q_{\text{max}}=59303\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

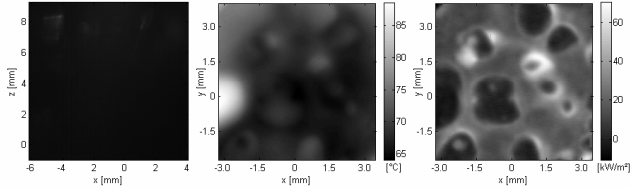


Seq: 24, time=3000ms, gravity=0g, $q_{\text{mean}}=6363\text{W/m}^2$, $t_{\text{mean}}=66.13^\circ\text{C}$, $q_{\text{max}}=20258\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

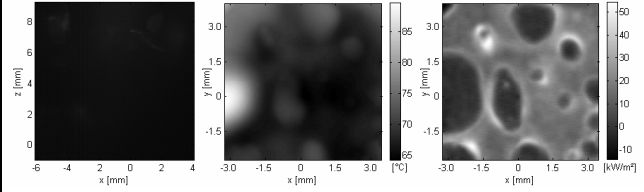
8.7. Data sets of sequence 28

General parameters of sequence 28:

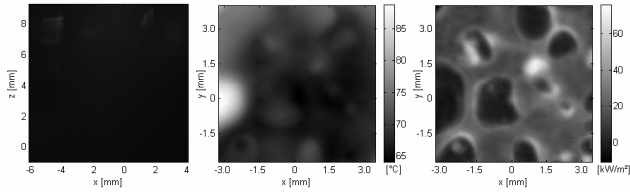
- Electrical heating power $\dot{q}_{el} = 16535 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 42.1 \text{ }^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.34 \text{ }^\circ\text{C}$



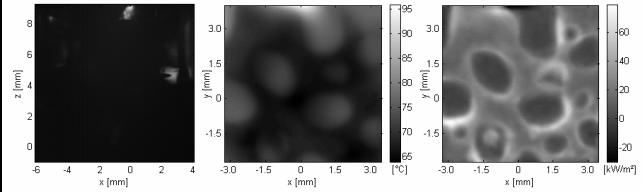
Seq: 28, time=1000ms, gravity=-0.04g, $q_{mean}=18023 \text{ W/m}^2$, $t_{mean}=69.12^\circ\text{C}$, $q_{max}=70872 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



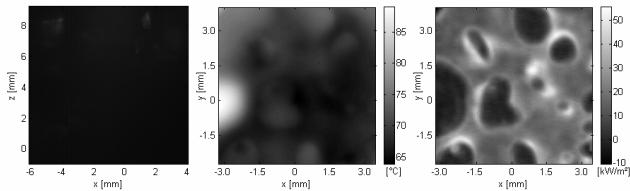
Seq: 28, time=1010ms, gravity=-0.05g, $q_{mean}=14583 \text{ W/m}^2$, $t_{mean}=69.16^\circ\text{C}$, $q_{max}=54640 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



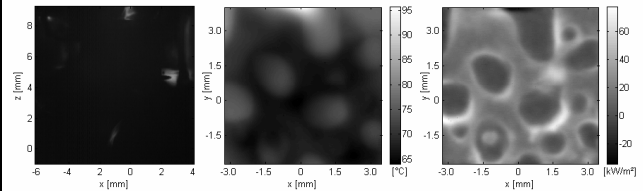
Seq: 28, time=1002ms, gravity=-0.04g, $q_{mean}=17489 \text{ W/m}^2$, $t_{mean}=69.09^\circ\text{C}$, $q_{max}=76689 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



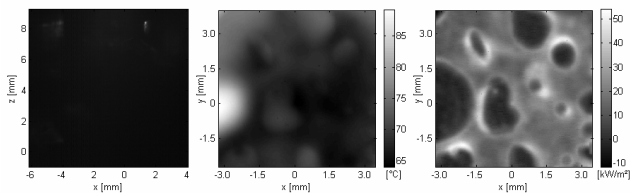
Seq: 28, time=1500ms, gravity=-0.04g, $q_{mean}=17553 \text{ W/m}^2$, $t_{mean}=69.74^\circ\text{C}$, $q_{max}=79967 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



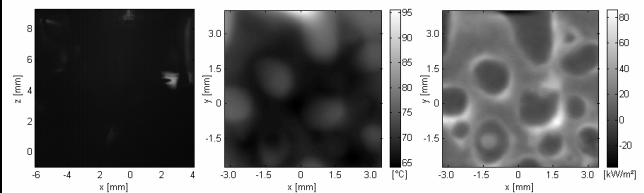
Seq: 28, time=1004ms, gravity=-0.04g, $q_{mean}=16708 \text{ W/m}^2$, $t_{mean}=69.08^\circ\text{C}$, $q_{max}=56251 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



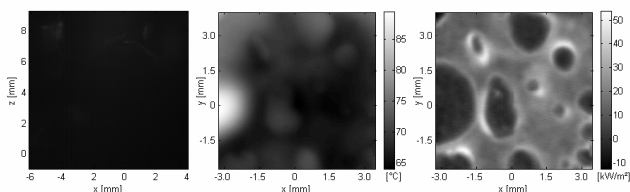
Seq: 28, time=1502ms, gravity=-0.03g, $q_{mean}=17917 \text{ W/m}^2$, $t_{mean}=69.72^\circ\text{C}$, $q_{max}=78376 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



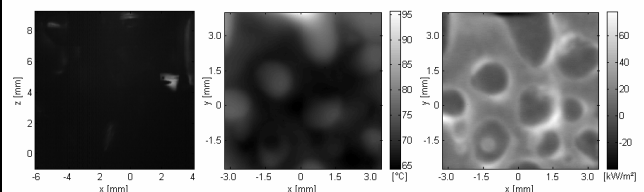
Seq: 28, time=1006ms, gravity=-0.06g, $q_{mean}=15848 \text{ W/m}^2$, $t_{mean}=69.08^\circ\text{C}$, $q_{max}=54584 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



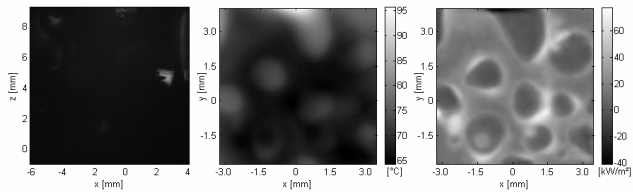
Seq: 28, time=1504ms, gravity=-0.02g, $q_{mean}=18119 \text{ W/m}^2$, $t_{mean}=69.69^\circ\text{C}$, $q_{max}=87131 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



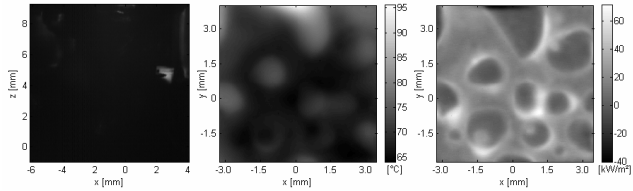
Seq: 28, time=1008ms, gravity=-0.05g, $q_{mean}=15012 \text{ W/m}^2$, $t_{mean}=69.11^\circ\text{C}$, $q_{max}=54109 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



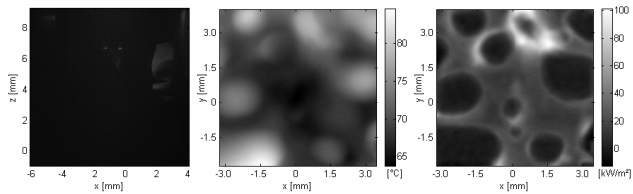
Seq: 28, time=1506ms, gravity=-0.02g, $q_{mean}=18197 \text{ W/m}^2$, $t_{mean}=69.66^\circ\text{C}$, $q_{max}=78785 \text{ W/m}^2$, $U_{electrode}=10 \text{ kV}$



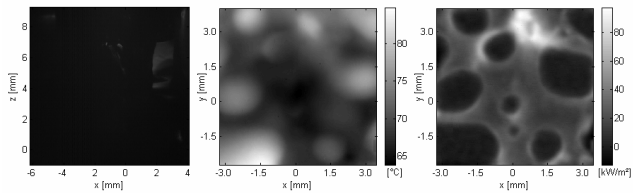
Seq: 28, time=1508ms, gravity=-0.03g, $q_{\text{mean}}=18081\text{W/m}^2$, $t_{\text{mean}}=69.62^\circ\text{C}$, $q_{\text{max}}=78715\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



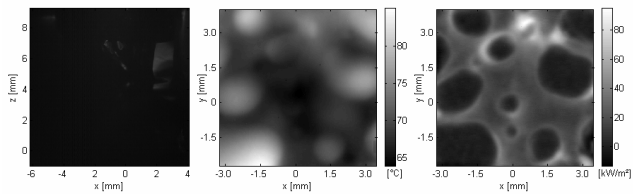
Seq: 28, time=1510ms, gravity=-0.04g, $q_{\text{mean}}=17718\text{W/m}^2$, $t_{\text{mean}}=69.6^\circ\text{C}$, $q_{\text{max}}=72880\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



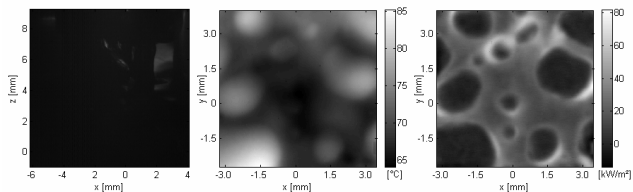
Seq: 28, time=2000ms, gravity=-0.01g, $q_{\text{mean}}=18185\text{W/m}^2$, $t_{\text{mean}}=70.27^\circ\text{C}$, $q_{\text{max}}=102383\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



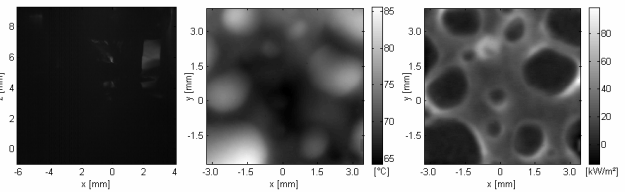
Seq: 28, time=2002ms, gravity=0g, $q_{\text{mean}}=17645\text{W/m}^2$, $t_{\text{mean}}=70.23^\circ\text{C}$, $q_{\text{max}}=98382\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



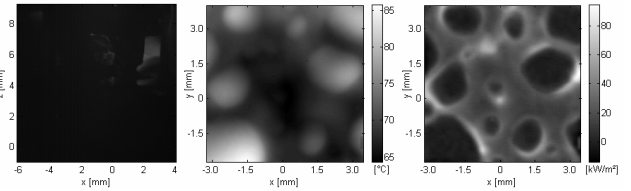
Seq: 28, time=2004ms, gravity=-0.01g, $q_{\text{mean}}=16767\text{W/m}^2$, $t_{\text{mean}}=70.21^\circ\text{C}$, $q_{\text{max}}=95660\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



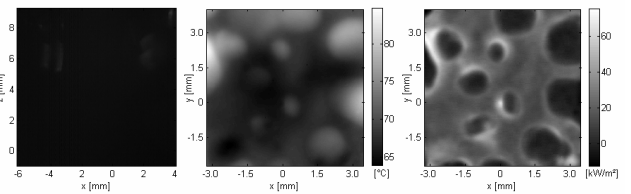
Seq: 28, time=2006ms, gravity=-0.02g, $q_{\text{mean}}=16387\text{W/m}^2$, $t_{\text{mean}}=70.21^\circ\text{C}$, $q_{\text{max}}=82794\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



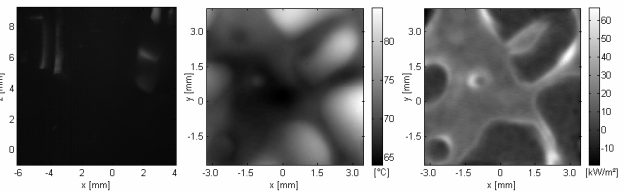
Seq: 28, time=2008ms, gravity=-0.02g, $q_{\text{mean}}=16561\text{W/m}^2$, $t_{\text{mean}}=70.22^\circ\text{C}$, $q_{\text{max}}=99753\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



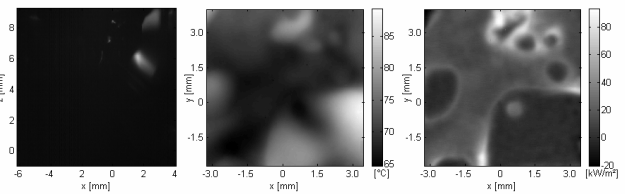
Seq: 28, time=2010ms, gravity=-0.02g, $q_{\text{mean}}=17097\text{W/m}^2$, $t_{\text{mean}}=70.21^\circ\text{C}$, $q_{\text{max}}=95745\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



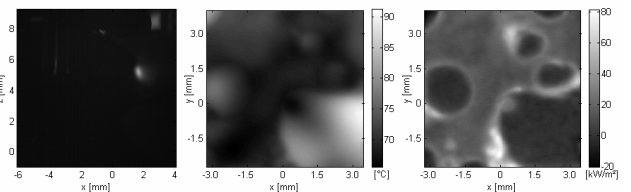
Seq: 28, time=2340ms, gravity=-0.01g, $q_{\text{mean}}=16670\text{W/m}^2$, $t_{\text{mean}}=68.77^\circ\text{C}$, $q_{\text{max}}=76177\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



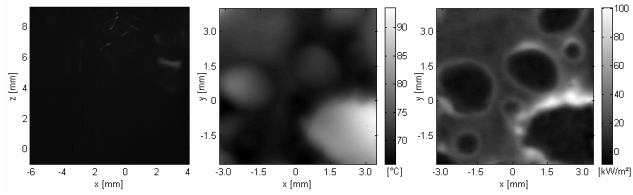
Seq: 28, time=2385ms, gravity=0g, $q_{\text{mean}}=11939\text{W/m}^2$, $t_{\text{mean}}=70.08^\circ\text{C}$, $q_{\text{max}}=67658\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



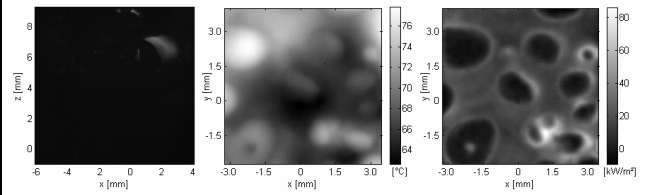
Seq: 28, time=2420ms, gravity=0g, $q_{\text{mean}}=15660\text{W/m}^2$, $t_{\text{mean}}=71.29^\circ\text{C}$, $q_{\text{max}}=94524\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



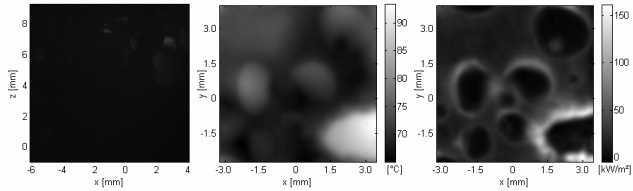
Seq: 28, time=2435ms, gravity=0.01g, $q_{\text{mean}}=13707\text{W/m}^2$, $t_{\text{mean}}=71.61^\circ\text{C}$, $q_{\text{max}}=82189\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



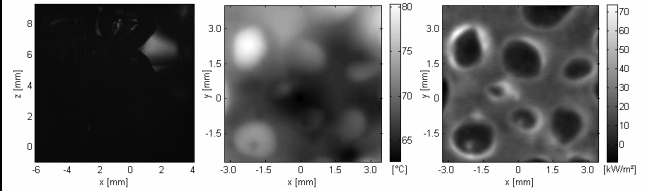
Seq: 28, time=2455ms, gravity=0.01g, $q_{\text{mean}}=16081\text{W/m}^2$, $t_{\text{mean}}=71.92^\circ\text{C}$, $q_{\text{max}}=101796\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



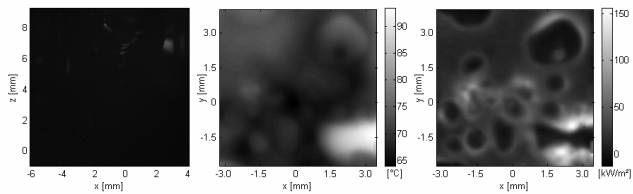
Seq: 28, time=2520ms, gravity=0.01g, $q_{\text{mean}}=16534\text{W/m}^2$, $t_{\text{mean}}=68.6^\circ\text{C}$, $q_{\text{max}}=86862\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



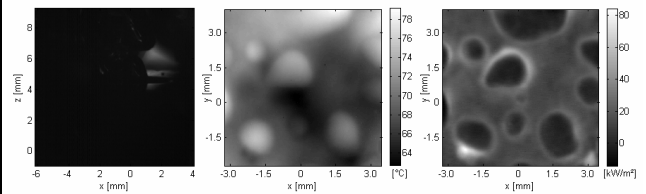
Seq: 28, time=2470ms, gravity=0g, $q_{\text{mean}}=23048\text{W/m}^2$, $t_{\text{mean}}=71.5^\circ\text{C}$, $q_{\text{max}}=162953\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



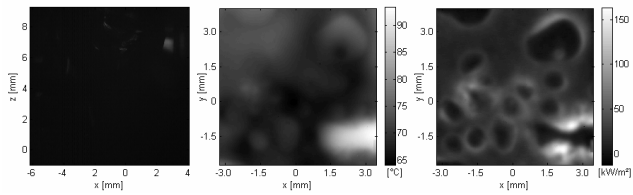
Seq: 28, time=2540ms, gravity=0g, $q_{\text{mean}}=16871\text{W/m}^2$, $t_{\text{mean}}=68.71^\circ\text{C}$, $q_{\text{max}}=74673\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



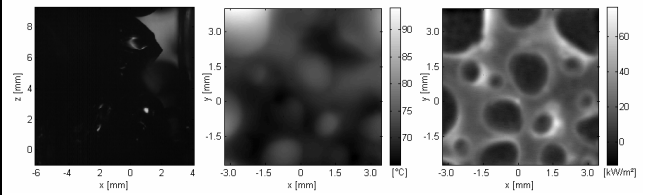
Seq: 28, time=2480ms, gravity=0.01g, $q_{\text{mean}}=25906\text{W/m}^2$, $t_{\text{mean}}=70.56^\circ\text{C}$, $q_{\text{max}}=156668\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



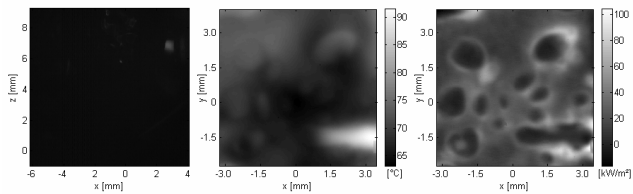
Seq: 28, time=2560ms, gravity=0.01g, $q_{\text{mean}}=14578\text{W/m}^2$, $t_{\text{mean}}=69.04^\circ\text{C}$, $q_{\text{max}}=85015\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



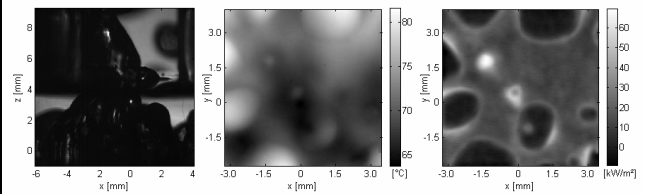
Seq: 28, time=2481ms, gravity=0g, $q_{\text{mean}}=26325\text{W/m}^2$, $t_{\text{mean}}=70.45^\circ\text{C}$, $q_{\text{max}}=165046\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



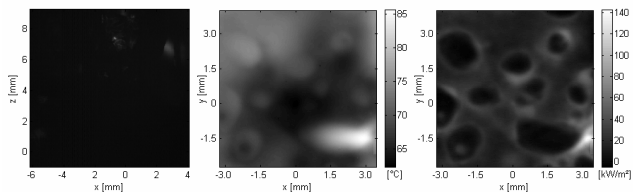
Seq: 28, time=3000ms, gravity=0.02g, $q_{\text{mean}}=16420\text{W/m}^2$, $t_{\text{mean}}=71.28^\circ\text{C}$, $q_{\text{max}}=77212\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



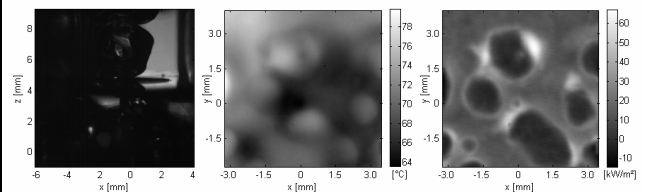
Seq: 28, time=2490ms, gravity=0g, $q_{\text{mean}}=22614\text{W/m}^2$, $t_{\text{mean}}=69.55^\circ\text{C}$, $q_{\text{max}}=105701\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 28, time=3500ms, gravity=0.04g, $q_{\text{mean}}=13875\text{W/m}^2$, $t_{\text{mean}}=70.28^\circ\text{C}$, $q_{\text{max}}=70356\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$



Seq: 28, time=2500ms, gravity=0g, $q_{\text{mean}}=18982\text{W/m}^2$, $t_{\text{mean}}=68.97^\circ\text{C}$, $q_{\text{max}}=144039\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

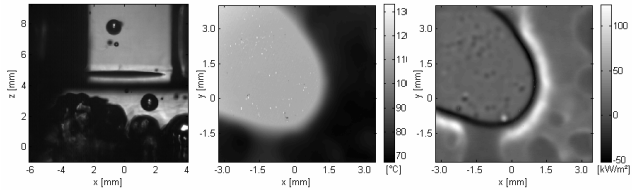


Seq: 28, time=3980ms, gravity=0.03g, $q_{\text{mean}}=14519\text{W/m}^2$, $t_{\text{mean}}=69.36^\circ\text{C}$, $q_{\text{max}}=67939\text{W/m}^2$, $U_{\text{electrode}}=10\text{kV}$

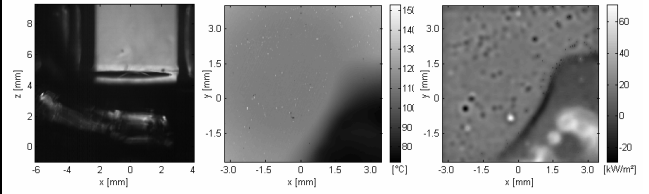
8.8. Data sets of sequence 29

General parameters of sequence 29:

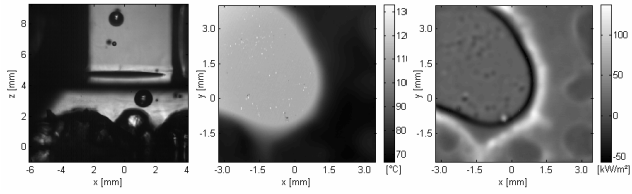
- Electrical heating power $\dot{q}_{el} = 16535 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 41.76 \text{ }^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.34 \text{ }^\circ\text{C}$



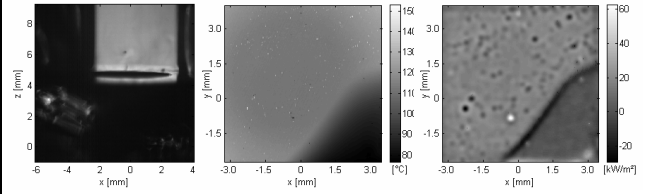
Seq: 29, time=0005ms, gravity=0.04g, $q_{mean}=20008 \text{ W/m}^2$, $t_{mean}=91.95^\circ\text{C}$, $q_{max}=124990 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



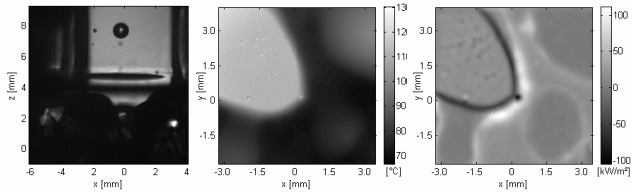
Seq: 29, time=0500ms, gravity=0.02g, $q_{mean}=15039 \text{ W/m}^2$, $t_{mean}=108.04^\circ\text{C}$, $q_{max}=71834 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



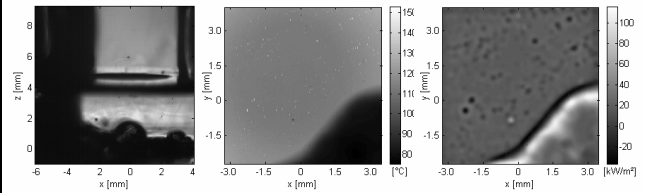
Seq: 29, time=0020ms, gravity=0.02g, $q_{mean}=22207 \text{ W/m}^2$, $t_{mean}=91.37^\circ\text{C}$, $q_{max}=138767 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



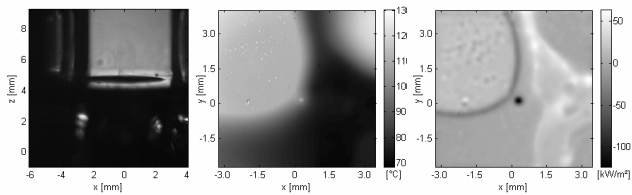
Seq: 29, time=0550ms, gravity=0.02g, $q_{mean}=12579 \text{ W/m}^2$, $t_{mean}=110.05^\circ\text{C}$, $q_{max}=63554 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



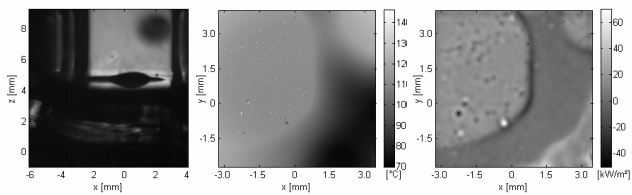
Seq: 29, time=0140ms, gravity=0.02g, $q_{mean}=13567 \text{ W/m}^2$, $t_{mean}=89.02^\circ\text{C}$, $q_{max}=113321 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



Seq: 29, time=0650ms, gravity=0.02g, $q_{mean}=19856 \text{ W/m}^2$, $t_{mean}=109.11^\circ\text{C}$, $q_{max}=116897 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$



Seq: 29, time=0330ms, gravity=0.02g, $q_{mean}=9714 \text{ W/m}^2$, $t_{mean}=93.99^\circ\text{C}$, $q_{max}=65350 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$

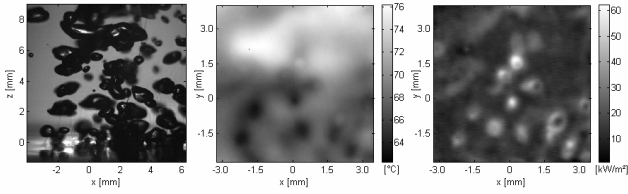


Seq: 29, time=0440ms, gravity=0.03g, $q_{mean}=9420 \text{ W/m}^2$, $t_{mean}=104.93^\circ\text{C}$, $q_{max}=70703 \text{ W/m}^2$, $U_{electrode}=0 \text{ kV}$

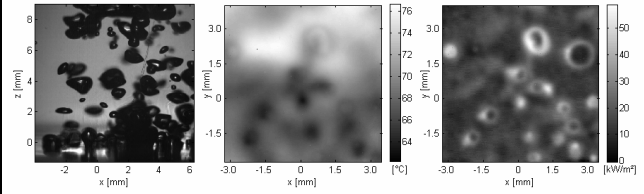
8.9. Data sets of sequence 57

General parameters of sequence 57:

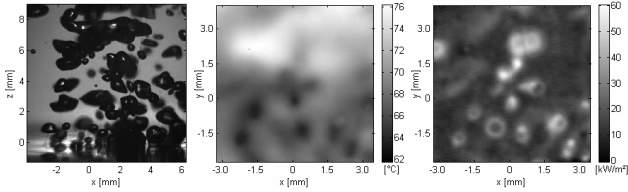
- Electrical heating power $\dot{q}_{el} = 18821 \text{ W/m}^2$
- Bulk liquid temperature $t_{fluid} = 42.01^\circ\text{C}$
- Saturation temperature $t_{sat} = 42.41^\circ\text{C}$



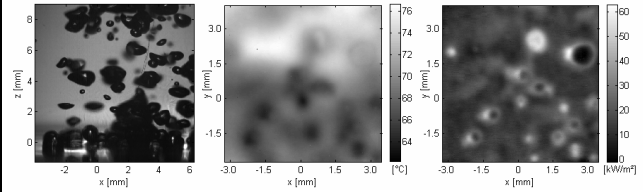
Seq: 57, time=0530ms, gravity=1.3g, $q_{mean}=17030\text{W/m}^2$, $t_{mean}=69.45^\circ\text{C}$, $q_{max}=62953\text{W/m}^2$



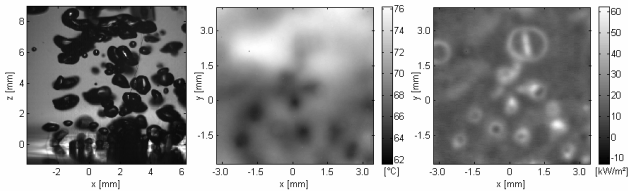
Seq: 57, time=0540ms, gravity=1.33g, $q_{mean}=17758\text{W/m}^2$, $t_{mean}=69.63^\circ\text{C}$, $q_{max}=59439\text{W/m}^2$



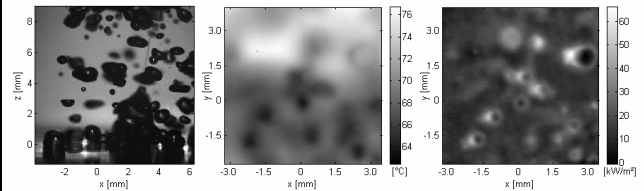
Seq: 57, time=0532ms, gravity=1.3g, $q_{mean}=17790\text{W/m}^2$, $t_{mean}=69.49^\circ\text{C}$, $q_{max}=60914\text{W/m}^2$



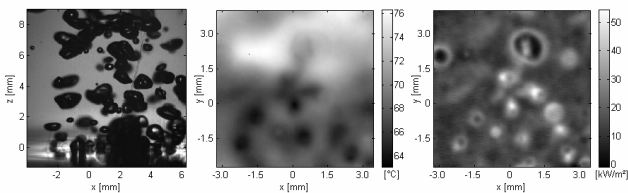
Seq: 57, time=0542ms, gravity=1.32g, $q_{mean}=17352\text{W/m}^2$, $t_{mean}=69.65^\circ\text{C}$, $q_{max}=63478\text{W/m}^2$



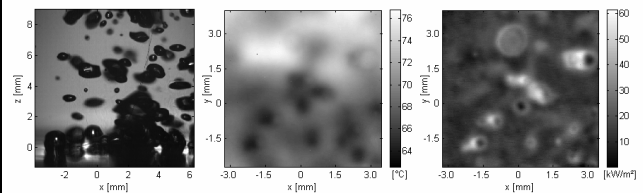
Seq: 57, time=0534ms, gravity=1.31g, $q_{mean}=17150\text{W/m}^2$, $t_{mean}=69.51^\circ\text{C}$, $q_{max}=63138\text{W/m}^2$



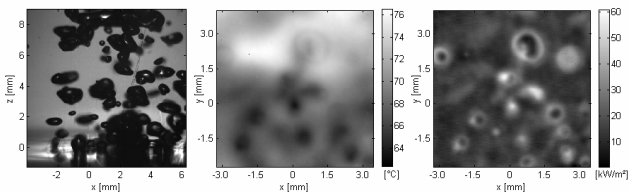
Seq: 57, time=0544ms, gravity=1.33g, $q_{mean}=17096\text{W/m}^2$, $t_{mean}=69.7^\circ\text{C}$, $q_{max}=66935\text{W/m}^2$



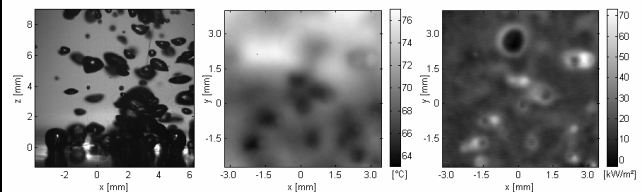
Seq: 57, time=0536ms, gravity=1.31g, $q_{mean}=17217\text{W/m}^2$, $t_{mean}=69.56^\circ\text{C}$, $q_{max}=55026\text{W/m}^2$



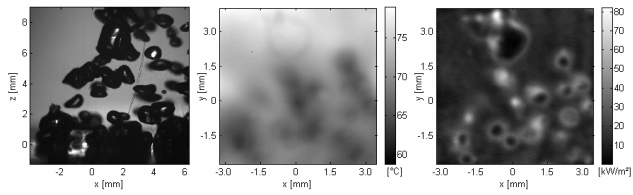
Seq: 57, time=0546ms, gravity=1.32g, $q_{mean}=17295\text{W/m}^2$, $t_{mean}=69.74^\circ\text{C}$, $q_{max}=61971\text{W/m}^2$



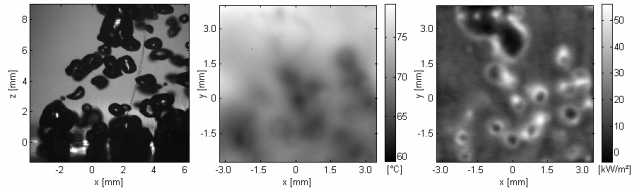
Seq: 57, time=0538ms, gravity=1.32g, $q_{mean}=17698\text{W/m}^2$, $t_{mean}=69.6^\circ\text{C}$, $q_{max}=61410\text{W/m}^2$



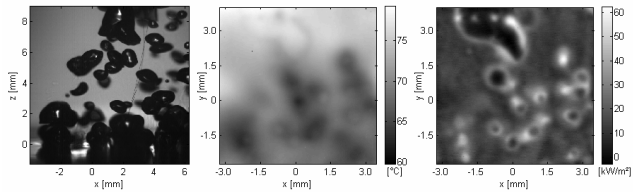
Seq: 57, time=0548ms, gravity=1.32g, $q_{mean}=17187\text{W/m}^2$, $t_{mean}=69.78^\circ\text{C}$, $q_{max}=73605\text{W/m}^2$



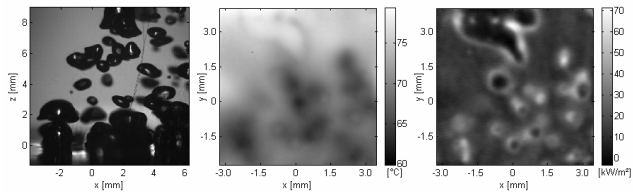
Seq: 57, time=1190ms, gravity=0.98g, $q_{\text{mean}}=18082\text{W/m}^2$, $t_{\text{mean}}=70.35^\circ\text{C}$, $q_{\text{max}}=82926\text{W/m}^2$



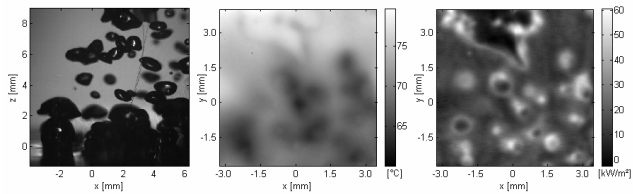
Seq: 57, time=1192ms, gravity=1g, $q_{\text{mean}}=17395\text{W/m}^2$, $t_{\text{mean}}=70.38^\circ\text{C}$, $q_{\text{max}}=56512\text{W/m}^2$



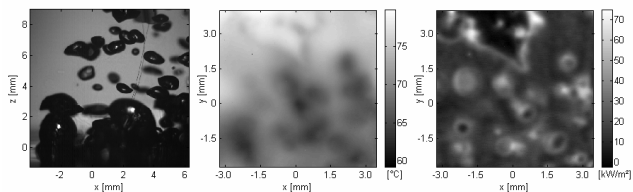
Seq: 57, time=1194ms, gravity=1g, $q_{\text{mean}}=17303\text{W/m}^2$, $t_{\text{mean}}=70.43^\circ\text{C}$, $q_{\text{max}}=63037\text{W/m}^2$



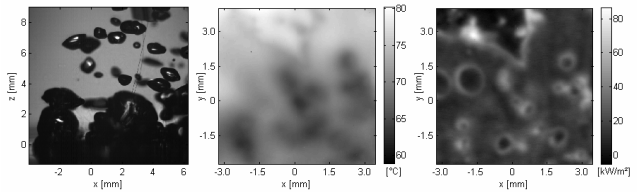
Seq: 57, time=1196ms, gravity=1.01g, $q_{\text{mean}}=17706\text{W/m}^2$, $t_{\text{mean}}=70.47^\circ\text{C}$, $q_{\text{max}}=72142\text{W/m}^2$



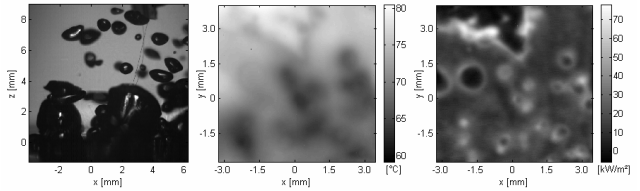
Seq: 57, time=1198ms, gravity=1g, $q_{\text{mean}}=18675\text{W/m}^2$, $t_{\text{mean}}=70.5^\circ\text{C}$, $q_{\text{max}}=61172\text{W/m}^2$



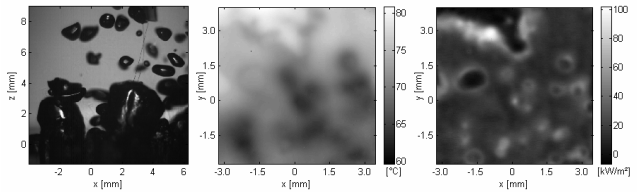
Seq: 57, time=1200ms, gravity=1g, $q_{\text{mean}}=18890\text{W/m}^2$, $t_{\text{mean}}=70.5^\circ\text{C}$, $q_{\text{max}}=75496\text{W/m}^2$



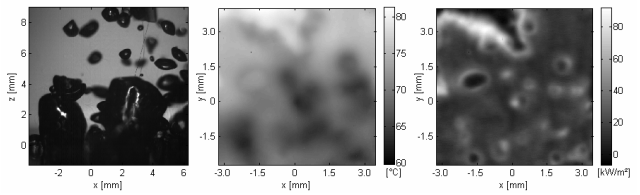
Seq: 57, time=1202ms, gravity=0.98g, $q_{\text{mean}}=18417\text{W/m}^2$, $t_{\text{mean}}=70.51^\circ\text{C}$, $q_{\text{max}}=87376\text{W/m}^2$



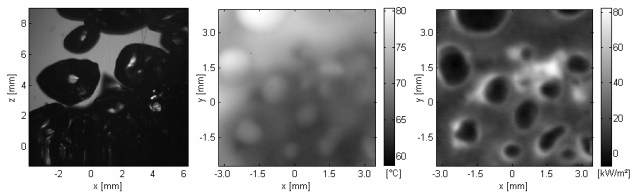
Seq: 57, time=1204ms, gravity=0.98g, $q_{\text{mean}}=18896\text{W/m}^2$, $t_{\text{mean}}=70.52^\circ\text{C}$, $q_{\text{max}}=78809\text{W/m}^2$



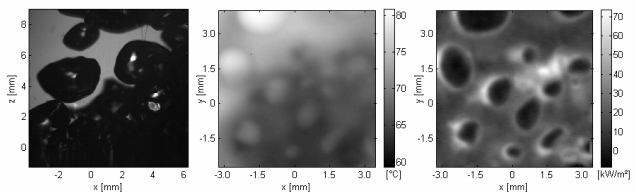
Seq: 57, time=1206ms, gravity=0.98g, $q_{\text{mean}}=20044\text{W/m}^2$, $t_{\text{mean}}=70.53^\circ\text{C}$, $q_{\text{max}}=102821\text{W/m}^2$



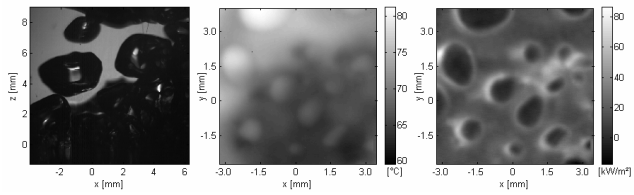
Seq: 57, time=1208ms, gravity=0.98g, $q_{\text{mean}}=21903\text{W/m}^2$, $t_{\text{mean}}=70.49^\circ\text{C}$, $q_{\text{max}}=93135\text{W/m}^2$



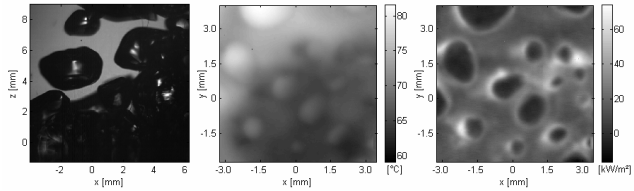
Seq: 57, time=2350ms, gravity=0.18g, $q_{\text{mean}}=19912\text{W/m}^2$, $t_{\text{mean}}=69.08^\circ\text{C}$, $q_{\text{max}}=82782\text{W/m}^2$



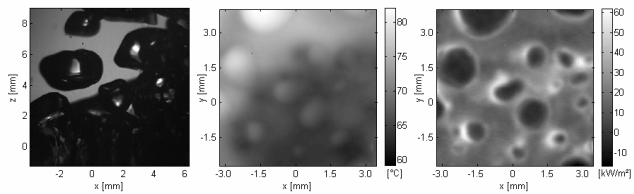
Seq: 57, time=2352ms, gravity=0.19g, $q_{\text{mean}}=19628\text{W/m}^2$, $t_{\text{mean}}=69.06^\circ\text{C}$, $q_{\text{max}}=74409\text{W/m}^2$



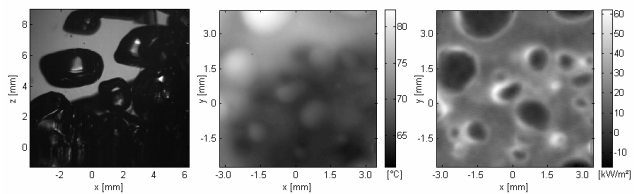
Seq: 57, time=2354ms, gravity=0.18g, $q_{\text{mean}}=19340\text{W/m}^2$, $t_{\text{mean}}=69.04^\circ\text{C}$, $q_{\text{max}}=87127\text{W/m}^2$



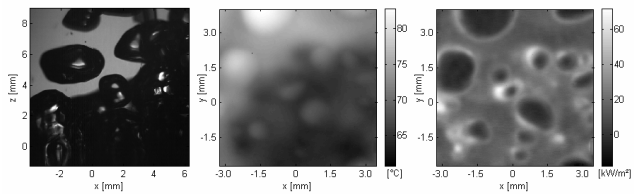
Seq: 57, time=2356ms, gravity=0.19g, $q_{\text{mean}}=18588\text{W/m}^2$, $t_{\text{mean}}=69.02^\circ\text{C}$, $q_{\text{max}}=74877\text{W/m}^2$



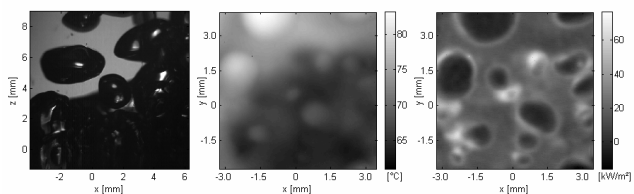
Seq: 57, time=2358ms, gravity=0.2g, $q_{\text{mean}}=17948\text{W/m}^2$, $t_{\text{mean}}=69.04^\circ\text{C}$, $q_{\text{max}}=62612\text{W/m}^2$



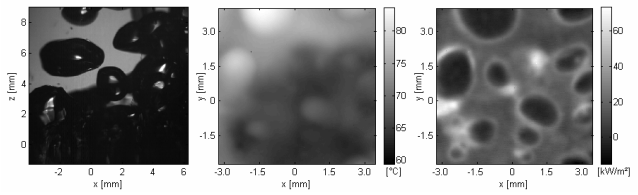
Seq: 57, time=2360ms, gravity=0.19g, $q_{\text{mean}}=18061\text{W/m}^2$, $t_{\text{mean}}=69.07^\circ\text{C}$, $q_{\text{max}}=62918\text{W/m}^2$



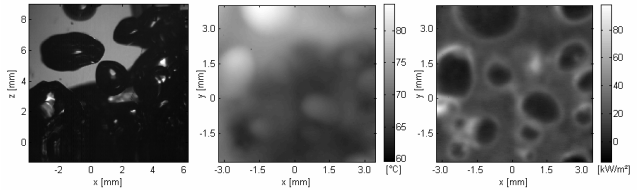
Seq: 57, time=2362ms, gravity=0.17g, $q_{\text{mean}}=17983\text{W/m}^2$, $t_{\text{mean}}=69.09^\circ\text{C}$, $q_{\text{max}}=72650\text{W/m}^2$



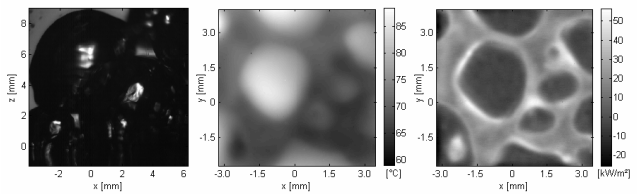
Seq: 57, time=2364ms, gravity=0.16g, $q_{\text{mean}}=17416\text{W/m}^2$, $t_{\text{mean}}=69.12^\circ\text{C}$, $q_{\text{max}}=77791\text{W/m}^2$



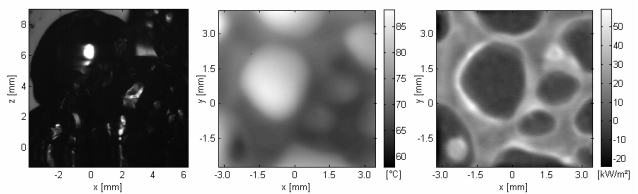
Seq: 57, time=2366ms, gravity=0.16g, $q_{\text{mean}}=17059\text{W/m}^2$, $t_{\text{mean}}=69.16^\circ\text{C}$, $q_{\text{max}}=74130\text{W/m}^2$



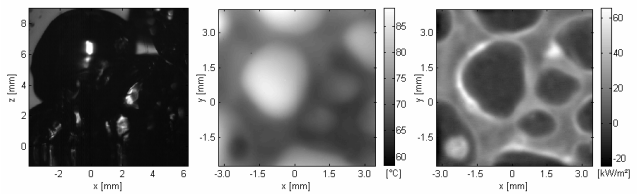
Seq: 57, time=2368ms, gravity=0.18g, $q_{\text{mean}}=17068\text{W/m}^2$, $t_{\text{mean}}=69.21^\circ\text{C}$, $q_{\text{max}}=99076\text{W/m}^2$



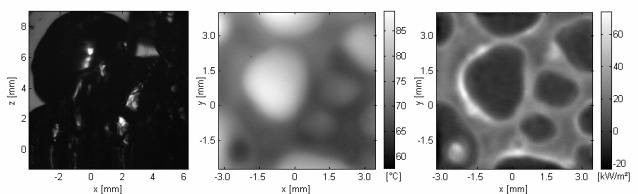
Seq: 57, time=2910ms, gravity=0.03g, $q_{\text{mean}}=13345\text{W/m}^2$, $t_{\text{mean}}=71.9^\circ\text{C}$, $q_{\text{max}}=57172\text{W/m}^2$



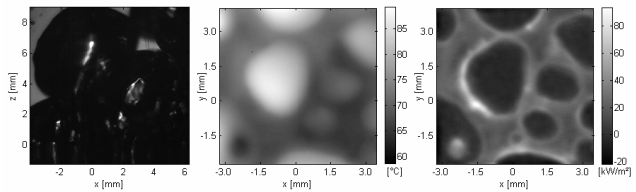
Seq: 57, time=2912ms, gravity=0.03g, $q_{\text{mean}}=13364\text{W/m}^2$, $t_{\text{mean}}=72.05^\circ\text{C}$, $q_{\text{max}}=59848\text{W/m}^2$



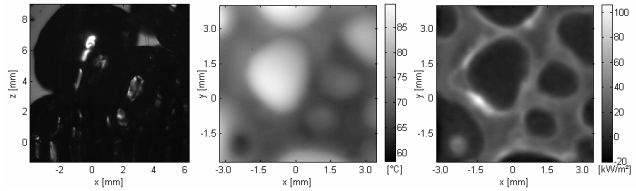
Seq: 57, time=2914ms, gravity=0.03g, $q_{\text{mean}}=13728\text{W/m}^2$, $t_{\text{mean}}=72.2^\circ\text{C}$, $q_{\text{max}}=66166\text{W/m}^2$



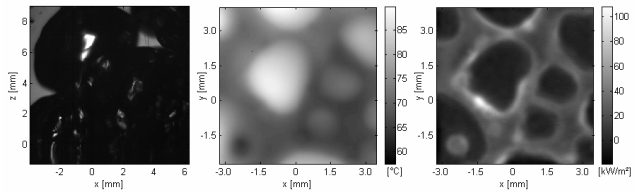
Seq: 57, time=2916ms, gravity=0.03g, $q_{\text{mean}}=13920\text{W/m}^2$, $t_{\text{mean}}=72.34^\circ\text{C}$, $q_{\text{max}}=74980\text{W/m}^2$



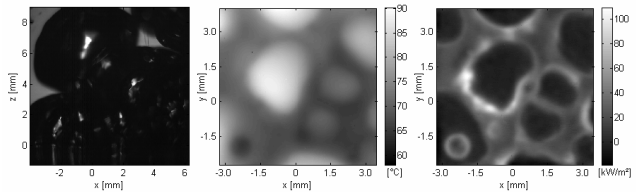
Seq: 57, time=2918ms, gravity=0.04g, $q_{\text{mean}}=14506\text{W/m}^2$, $t_{\text{mean}}=72.48^\circ\text{C}$, $q_{\text{max}}=94507\text{W/m}^2$



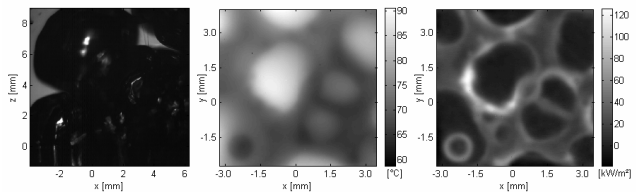
Seq: 57, time=2920ms, gravity=0.05g, $q_{\text{mean}}=14721\text{W/m}^2$, $t_{\text{mean}}=72.59^\circ\text{C}$, $q_{\text{max}}=107492\text{W/m}^2$



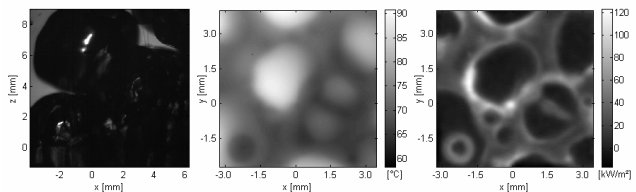
Seq: 57, time=2922ms, gravity=0.04g, $q_{\text{mean}}=15635\text{W/m}^2$, $t_{\text{mean}}=72.71^\circ\text{C}$, $q_{\text{max}}=109371\text{W/m}^2$



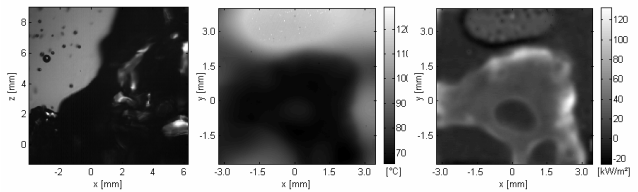
Seq: 57, time=2924ms, gravity=0.04g, $q_{\text{mean}}=17427\text{W/m}^2$, $t_{\text{mean}}=72.79^\circ\text{C}$, $q_{\text{max}}=110200\text{W/m}^2$



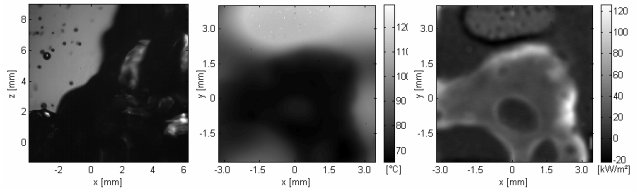
Seq: 57, time=2926ms, gravity=0.04g, $q_{\text{mean}}=19183\text{W/m}^2$, $t_{\text{mean}}=72.83^\circ\text{C}$, $q_{\text{max}}=127471\text{W/m}^2$



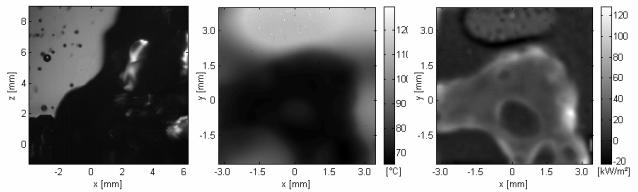
Seq: 57, time=2928ms, gravity=0.03g, $q_{\text{mean}}=20723\text{W/m}^2$, $t_{\text{mean}}=72.83^\circ\text{C}$, $q_{\text{max}}=123741\text{W/m}^2$



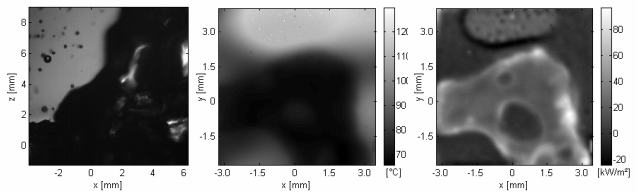
Seq: 57, time=3190ms, gravity=0.01g, $q_{\text{mean}}=16762\text{W/m}^2$, $t_{\text{mean}}=83.58^\circ\text{C}$, $q_{\text{max}}=133824\text{W/m}^2$



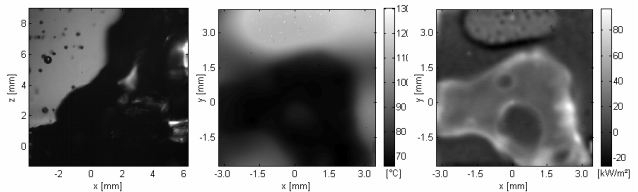
Seq: 57, time=3192ms, gravity=0.02g, $q_{\text{mean}}=16684\text{W/m}^2$, $t_{\text{mean}}=83.63^\circ\text{C}$, $q_{\text{max}}=127239\text{W/m}^2$



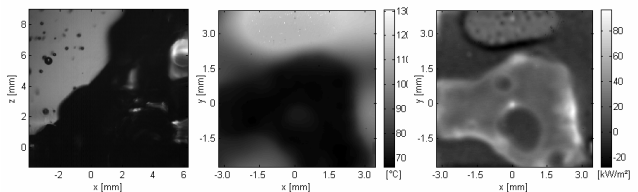
Seq: 57, time=3194ms, gravity=0.01g, $q_{\text{mean}}=15661\text{W/m}^2$, $t_{\text{mean}}=83.69^\circ\text{C}$, $q_{\text{max}}=129812\text{W/m}^2$



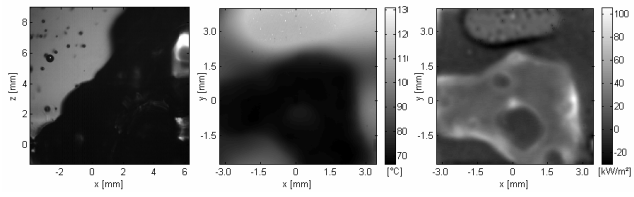
Seq: 57, time=3196ms, gravity=0g, $q_{\text{mean}}=15327\text{W/m}^2$, $t_{\text{mean}}=83.78^\circ\text{C}$, $q_{\text{max}}=98011\text{W/m}^2$



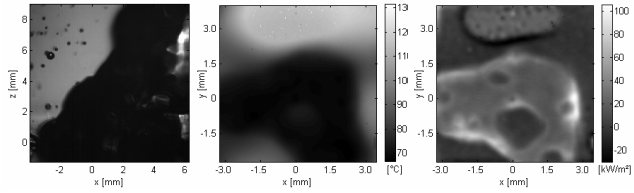
Seq: 57, time=3198ms, gravity=0g, $q_{\text{mean}}=14834\text{W/m}^2$, $t_{\text{mean}}=83.87^\circ\text{C}$, $q_{\text{max}}=98065\text{W/m}^2$



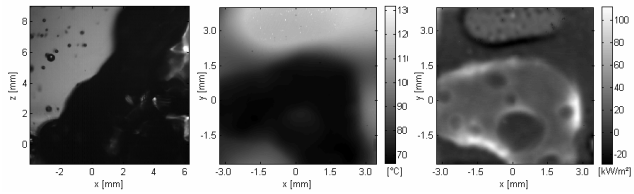
Seq: 57, time=3200ms, gravity=0g, $q_{\text{mean}}=13915\text{W/m}^2$, $t_{\text{mean}}=83.98^\circ\text{C}$, $q_{\text{max}}=98210\text{W/m}^2$



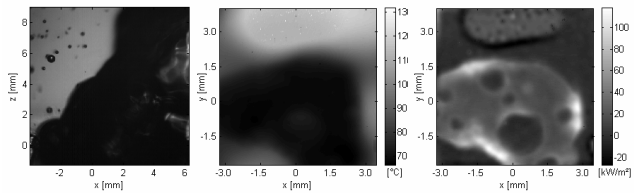
Seq: 57, time=3202ms, gravity=0.01g, $q_{\text{mean}}=13747\text{W/m}^2$,
 $t_{\text{mean}}=84.12^\circ\text{C}$, $q_{\text{max}}=106608\text{W/m}^2$



Seq: 57, time=3204ms, gravity=0.01g, $q_{\text{mean}}=14267\text{W/m}^2$,
 $t_{\text{mean}}=84.25^\circ\text{C}$, $q_{\text{max}}=106522\text{W/m}^2$



Seq: 57, time=3206ms, gravity=0.01g, $q_{\text{mean}}=15426\text{W/m}^2$,
 $t_{\text{mean}}=84.36^\circ\text{C}$, $q_{\text{max}}=113572\text{W/m}^2$



Seq: 57, time=3208ms, gravity=0.01g, $q_{\text{mean}}=16204\text{W/m}^2$,
 $t_{\text{mean}}=84.45^\circ\text{C}$, $q_{\text{max}}=119291\text{W/m}^2$